

## Homework without the hassle

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## Pack, Group and Check - Year 1

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# Teacher Quick Start

Pack, Group and Check - Year 1 | Five 45-minute lessons

## Purpose and starting point

Students solve supply stories by finding the number of groups, the amount each or the total. Check one-to-one counting and comparing quantities within ten first. Core totals are within 20. Explain equal, each, full pack, total, model, strategy and check in the actual story. Formal multiplication/division signs are not required.

## Prepare the supplied kit

Prepare the two counter banks (pp. 38-39): 12 pieces on each, 24 altogether; one piece represents one named item. Use the blank group mat (p. 37) or two/three/four-recipient mats (pp. 40-42). Keep pieces whole; use the pages at 100% size. An adult may prepare pieces. No dice, timer, food or purchased kit is needed.

## Print or display these dependencies

References: pp. 8-11. Practice and immediately matched red answers pp. 12-29. Pack Checker: rules/model p. 30, P1-P12 cards pp. 31-32, record pp. 33-34, guides pp. 35-36, mat p. 37, plus pieces/recipient mats pp. 38-42. Design a Classroom Pack: pp. 38-49, plus p. 37; rules/model p. 43, D1-D12 cards pp. 44-45, records pp. 46-47, guides pp. 48-49. Assessment sheets/answers: pp. 50-57; observations pp. 58-64; marking guide p. 55; rubric p. 56.

## Teach a repeatable routine

Name the givens and what to find. Count to the exact collection or given groups. Choose a model; group, deal the each, count systematically or use number knowledge. State an answer with meaning. Check equal amounts and every item used once. Reset the original collection between cases. Calculate before accepting/correcting a claim. Never add pieces to make it true.

## Pace and access

Use a choice of practice pages, not every sheet in every lesson. Two students swap planner/checker six Pack Checker rounds, or three design challenges per session. Show answers and attempts. Presentation slide 9 has 12 separate movable counters and 12 blank zones: use edit view, or physical pieces beside the slide. Adults read; students may move, draw, point, speak, use pictures/a communication device or have responses recorded. Record access help separately from mathematical prompts.

## Gather evidence and adapt

Observe across the week, especially Lessons 3-5. Use both fresh assessment sheets, discussion and practical probes; quiz Q1-5 in Lesson 4 and Q6-10 in Lesson 5. No speed or percentage pass gate. Support with six/eight items and fewer choices while retaining all three question types. Extend by another valid model or changing a given amount. Optional 24 and spare-item challenges do not determine a core pass. Record a specific next teaching step.

# Lesson 1 - Find the number of packs

45 minutes | Presentation slides 2-6

## Goal, success and materials

Given the total and items per pack, students find full packs and check all items.

Success: equal complete groups, a strategy and an answer that names packs. Use references pp. 8-9, a choice of pp. 12/14 with answers pp. 13/15 kept hidden, pieces pp. 38-39 and the empty mat p. 37.

## 5 min - Diagnose and introduce

Give six counters. Ask students to count once and compare two small collections.

Adult-read the story: six counters, two per pack. Ask: What is known? Are we finding all counters, counters each, or packs? Explain that a full pack has exactly two here.

## 10 min - Model

Use slide 3 and six real pieces. Put two in each full group; count three used groups. Count 2, 4, 6 to verify every piece. Point to the groups while naming them as packs. Ask: Does three name counters or packs? Why is an empty one not a pack?

## 15 min - Guide an attempt

On slide 4, students group eight into pairs before slide 5 feedback. Count used groups and check all eight. Compare counting every one with counting packs. Slide 6 connects the four pairs to 2, 4, 6, 8. If the total is reported as the group count, point to one full pack and recount only full packs.

## 10 min - Choose practice

Use one task from p. 12 or p. 14. Students build/draw a model, use a counting strategy, name packs/bags and check. An adult may read or record without giving the groups. Show the exact red answer only after the attempt. Accept another valid strategy that keeps the given.

## 5 min - Exit evidence and adaptation

Ask: What does your answer count? How do you know all items are used? Note full equal groups and conservation. Support six with packs of two and physical movement before drawing. Extend nine with three per box; compare models without requiring division signs. Record a specific next step if groups and total are confused.

# Lesson 2 - Test a packing claim

45 minutes | Presentation slides 7-10

## Goal, success and materials

Students calculate before accepting/correcting a claim, preserving the original total. Use practice pp. 16/20 and answers pp. 17/21; Pack Checker rules/model p. 30, cards pp. 31-32, records pp. 33-34, guides pp. 35-36 and mat p. 37. Also prepare supplied pieces/mats pp. 38-42. Success means an evidence-backed verdict, not winning.

## 5 min - Retrieve

Give a short packing story. Students name total, pack size and the unknown pack count. Ask: What evidence would prove a claim? Keep answers hidden until students attempt a model.

## 10 min - Model and virtual attempt

Slide 7: group twelve at three, finding four bags and checking 3, 9, 12. Slide 8: a checker stops at three groups of four from sixteen; four are unused, correct to four boxes. Use slide 9's twelve separate counters/blank zones in split view, or physical pieces, to build groups of three before slide 10 feedback. Never use spare zones as used groups.

## 15 min - Six cooperative rounds

Two students alternate planner/checker for six P cards. Adult reads. Name givens, question and labelled claim; build the collection, calculate, then accept/correct with reasons. Record model/strategy, verdict, right amount with meaning and check. Reset every round; do not add pieces to support a false claim. Save the other six cards for a later rotation.

## 10 min - Correct and practice

Choose a claim on p. 15 and a claim on p. 16. Students show their own correction/model and check all objects. Reveal the matched red page afterward. Ask: Have all objects been used once? Can the original claim be right without changing the story?

## 5 min - Exit, evidence and adaptation

Hear one explained verdict and record actual evidence. A lucky true/false guess is insufficient. Support lower-total cards, fewer cases and adult recording; retain the claim-check routine. Extend by another sound counting strategy. Begin brief practical observations now and continue across Lessons 3-5; no race, timer, elimination or score threshold.

# Lesson 3 - Find total or each

45 minutes | Presentation slides 11-16

## Goal, success and materials

Students distinguish given groups/size (find total) from given total/recipients (find each). Use pp. 18/22/24 with red answers pp. 19/23/25; Design kit pp. 38-49 and mat p. 37, especially D5-D10. Prepare observation p. 54. Success includes a faithful model, strategy, contextual answer and total/equality check.

## 5 min - Retrieve

Ask students to identify groups, items in each and total in a small supply model. Name the two amounts the story gives and what is still unknown. Adults read without supplying the mathematics.

## 10 min - Build repeated groups

Slide 11: four boxes of three gives twelve altogether; count 3, 6, 9, 12 for actual pieces. Slide 12: students attempt five trays of two before slide 13 feedback. Ask: Which number counts trays? Which counts each tray? Which count all counts? Accept counting, repeated addition or known amounts.

## 15 min - Share and repair

Slides 14-15: share ten among two (five each) then two among four (three each); deal one at a time and verify all items/equal amounts. Slide 16 repairs eight as  $3/5$  by moving one to make  $4/4$ ; keep all eight. Use D4/D6 and a D7-D10 case, swapping planner/checker. Ask: What changed in the question? What stayed in the collection?

## 10 min - Independent choice

Choose one repeated-groups problem from p. 18 and one sharing problem from pp. 22/24. Students model draw point to explain; adults may record. Keep matched answers hidden until after exit. Record whether the student correctly names total versus each rather than requiring operation signs.

## 5 min - Check evidence and adaptation

Use a fresh sharing probe from p. 54 with selected students and gather others' model records. Ask for answer meaning and a check. Support six in two groups/shares while keeping the question type. Extend a second representation or rearrangement that conserves the givens. No compulsory leftovers/fractions; separate access support from mathematical prompts.

# Lesson 4 - Design and verify a plan

45 minutes | Presentation slides 17-21 | Quiz Q1-5

## Goal, success and materials

Students transfer the routine to a classroom supply plan and explain the answer unit. Use choice pp. 26/28 (answers pp. 27/29), all Design kit pp. 38-49 plus mat p. 37, quiz Q1-5 (slides 2-11) and observation p. 54. Success: preserve givens, choose a model/strategy and justify groups, each or total.

## 5 min - Retrieve

Give two different story types and ask what must be found. Encourage students to point to the known quantities and name the unknown; do not prompt an operation word as a substitute for meaning.

## 10 min - Compare and transfer

Slide 17 compares twelve among three teams (four each) with twelve at three per bag (four bags). Same numeral, different meaning. Slide 18 groups twenty-two into ten sleeves; slide 19 shares sixteen among four. Slide 20 compares a model with repeated addition while keeping the same story. Ask: What is the unit in your answer?

## 15 min - Plan in pairs

Choose three D cases across groups, each add total. Name givens/question; count out exact pieces; choose the appropriate mat, build, calculate, answer and check. Swap planner/checker; reset pieces between cases. Record on pp. 46-47, then use matching guides pp. 48-49. Ask the partner to check with another valid representation. Collect real independent planning evidence.

## 5 min - Choose practice

Select a task from p. 26 or p. 28. Note p. 26's packing story uses four per box; students must retain that given to count how the matched answer only afterward. Optional slide 21: eleven at three gives three FULL boxes and two spares, not boxes needed to hold everything. This is not a core assessment gate.

## 10 min - Quiz and adaptation

Teacher-pace Q1-5, showing each consecutive answer after students respond and explain. Adults read; physical/pointed/spoken/drawn answers are valid. Continue observations with selected students. Support fewer choices and oral/model records while retaining each structure. Extend another representation or optional 24; no timer or percentage pass rule. Carry discussion if needed without dropping formal assessment.

# Lesson 5 - Check a fresh problem

45 minutes | Presentation slides 22-24 | Quiz Q6-10

## Goal, success and materials

Gather independent evidence across packing, sharing, repeated groups and claim repair. Prepare fresh sheets pp. 50/52; hide answers pp. 51/53. Use observation p. 54, marking guide p. 55, rubric p. 56 and quiz Q6-10 (slides 12-21). An answer needs a faithful model/strategy, meaning and a check.

## 5 min - Retrieve; 5 min - Directions

Retrieve with a different small model. Slide 22 explains moving, drawing, pointing or speaking; an adult may read/record. Explain blank model, strategy, answer and check spaces. Do not pre-display any assessment solution. Keep access support distinct from assistance with the mathematics.

## 20 min - Fresh independent assessment

Students solve fifteen beads at three per bag, fourteen clips for two bags, total from six pots of three, and fair repair of sixteen cards as 6/10. Each bag gives neutrally. Ask only: What does your answer mean? How can you check? Record the actual response, model and any mathematical prompt, not an assumed observation.

## Practical evidence during the work

Use evidence already gathered in Lessons 3-5 and collect remaining fresh probes with selected students while others work. Slide 23 offers fourteen at two or eighteen among three, attempted before feedback. Slide 24 also offers three groups of five. Do not require an individual interview with every student in this lesson. Record equality, conservation and the unknown being answered.

## 10 min - Remaining quiz

Teacher-pace Q6-10 and then consecutive answer slides. Let students explain before revealing feedback. Accept another correct redistribution/model if the original quantities remain intact. Quiz discussion adds evidence; no percentage threshold replaces reasoning.

## 5 min - Reflect and decide next step

Use slide 24 and the whole-evidence marking guide/rubric. Ask students how they checked and what their answer counts. Separate situation/unknown, model, strategy and answer/check evidence. Give a specific next teaching step, such as recounting only used groups, or compare valid models for extension. Reading, handwriting, cutting, speed, formal signs and optional 24/spare tasks are not mathematics pass gates.

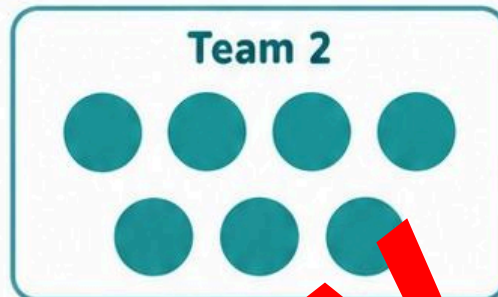
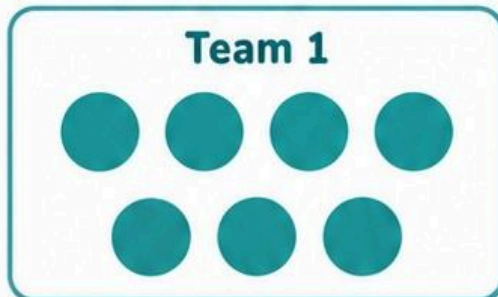
# What Do We Need to Find?

## Year 1 • Worked examples

1

**SHARE:** 14 cards for 2 teams.

Find how many each team gets.

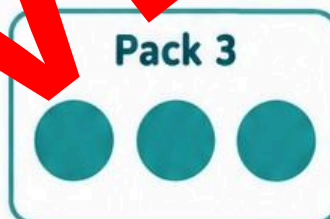


7 cards each.  $7 + 7 = 14$ .

2

**PACK:** 12 cards, 3 in each pack.

Find how many packs.

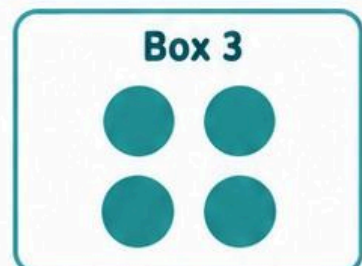
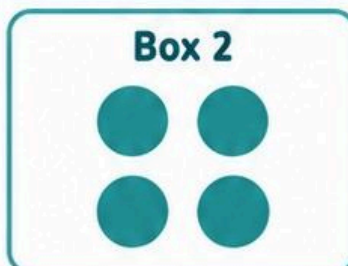
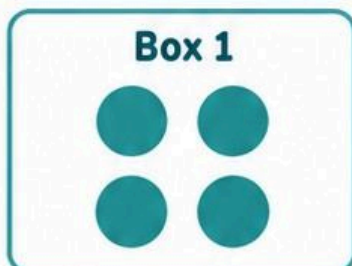


4 packs.  $3 + 3 + 3 + 3 = 12$ .

3

**TOTAL:** 3 boxes, 4 cards in each.

Find how many cards altogether.



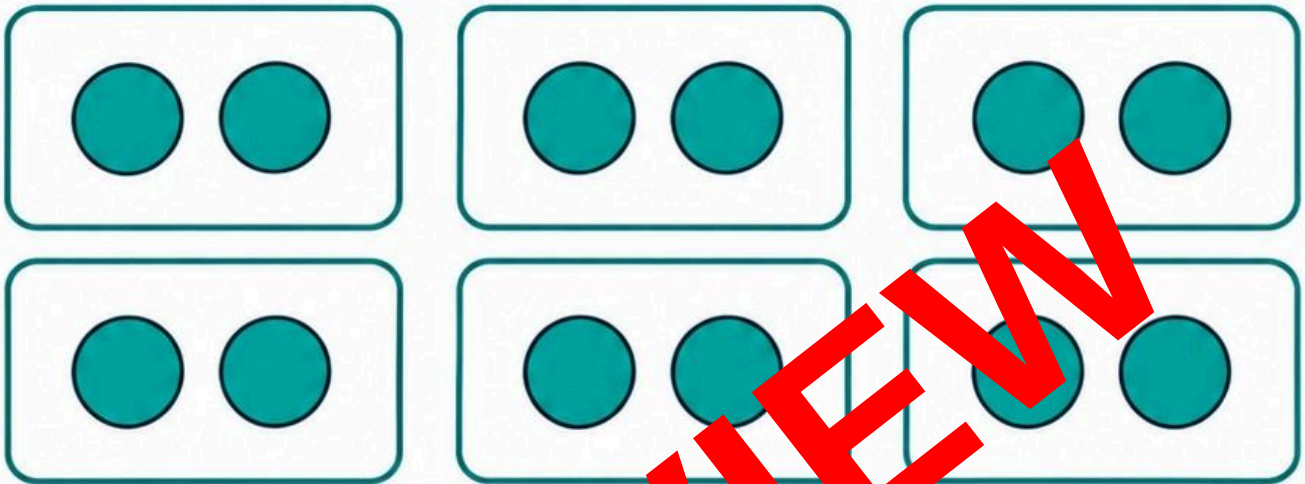
12 cards altogether.  $4 + 4 + 4 = 12$ .

Ask what is given. Name what you need to find. Check every item.

# Pack and Count

Year 1 • Worked examples

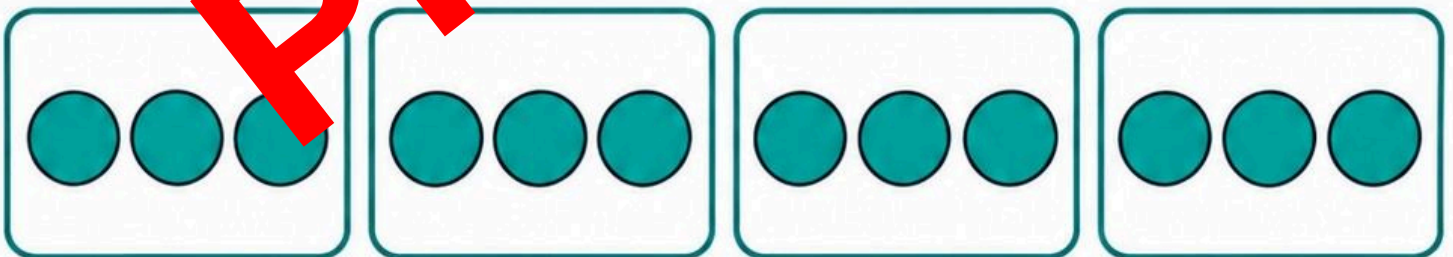
**12** cards. Put **2** in each pack.



Count the cards: **2, 4, 6, 8, 10, 12.**

**6** packs. Every card is used once.

**4** boxes. Put **3** cards in each box.



$$3 + 3 + 3 + 3 = 12.$$

**12** cards altogether.

Does your answer count packs or cards?

# Check a Claim

Year 1 • Worked example

**THE CLAIM:** 8 counters shared as 3 and 5 are equal.

Team A



3 counters

Team B



5 counters

**This claim is false.**

The teams have different amounts.

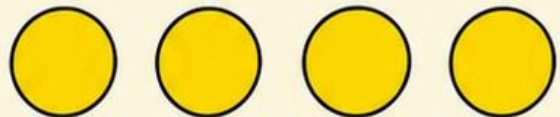
**THE REPAIR:** Move 1 counter from Team B to Team A.

Team A



4 counters

Team B



4 counters

**THE CHECK:**  $4 + 4 = 8$ .

Both teams have 4. All 8 counters are still here.  
Equal shares have the same number.

# Explain a Supply Plan

Year 1 • Worked example

## Story:

9 buttons for 3 trays.

How many buttons in each tray?

**My model:** 3 equal trays.



## My strategy:

Deal one to each tray, then repeat until all 9 are used.

## My answer:

3 buttons in each tray.

## My check:

$$3 + 3 + 3 = 9.$$

The trays have equal amounts.

You can point, move pieces or speak.  
An adult can record your explanation.

# Start Packing

Name: \_\_\_\_\_

Make full packs. Count only the packs you use.

## 1. 6 counters. Put 2 in each pack.

My model or drawing:

My counting strategy:

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---

I can make \_\_\_\_\_ packs.

My check:

---

---

## 2. 8 clips. Put 2 in each bag.

My model or drawing:

My counting strategy:

---

---

---

---

I can fill \_\_\_\_\_ bags.

My check:

---

---

Move pieces, draw or explain. An adult may record your thinking.

# ANSWERS

Name: ANSWERS

Make full packs. Count only the packs you use.

## 1. 6 counters. Put 2 in each pack.

My model or drawing:

One valid model:



My counting strategy:

Count 2, 4, 6

I can make 3 packs.

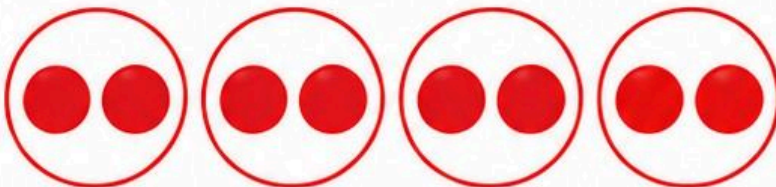
My check:

$2 + 2 + 2 = 6$ . All 6 used.

## 2. 8 clips. Put 2 in each bag.

My model or drawing:

One valid model:



My counting strategy:

Count 2, 4, 6, 8

I can fill 4 bags.

My check:

$2 + 2 + 2 + 2 = 8$ . All 8 used.

# Three in Each Pack

Name: \_\_\_\_\_

Use every item once.

1. There are 9 items. Put 3 in each box.

My model or drawing:

My counting strategy:

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---

I can fill \_\_\_\_\_ boxes.

My check:

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---

2. There are 12 items. Put 3 in each packet.

My model or drawing:

My counting strategy:

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I can make \_\_\_\_\_ packets.

My check:

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# ANSWERS

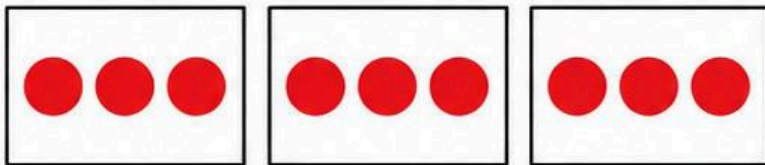
Name: ANSWERS

Use every item once.

1. There are 9 items. Put 3 in each box.

My model or drawing:

One valid model:



My counting strategy:

$$3 + 3 + 3 = 9$$

I can fill 3 boxes.

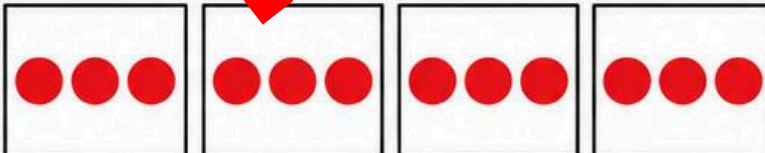
My check:

All 9 used. 3 in each box.

2. There are 12 items. Put 3 in each packet.

My model or drawing:

One valid model:



My counting strategy:

$$3 + 3 + 3 + 3 = 12$$

I can make 4 packets.

My check:

All 12 used. 3 in each packet.

# Check Bigger Packs

Name: \_\_\_\_\_

Make equal full packs. Check every item.

1. 16 counters. Put 4 in each tub.

My model or drawing:

My counting strategy:

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I can fill \_\_\_\_\_ tubs.

My check:

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---

2. 20 clips. Put 2 in each sleeve.

My model or drawing:

My counting strategy:

---

---

---

I can fill \_\_\_\_\_ sleeves.

My check:

---

---

# ANSWERS

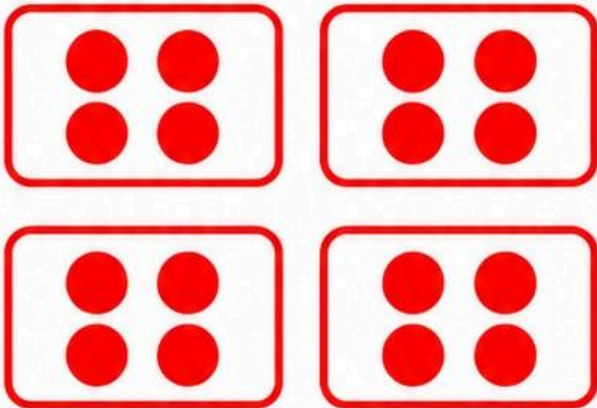
Name: ANSWERS

Make equal full packs. Check every item.

1. 16 counters. Put 4 in each tub.

My model or drawing:

One valid model:



My counting strategy:

$$4 + 4 + 4 + 4 = 16$$

I can fill 4 tubs.

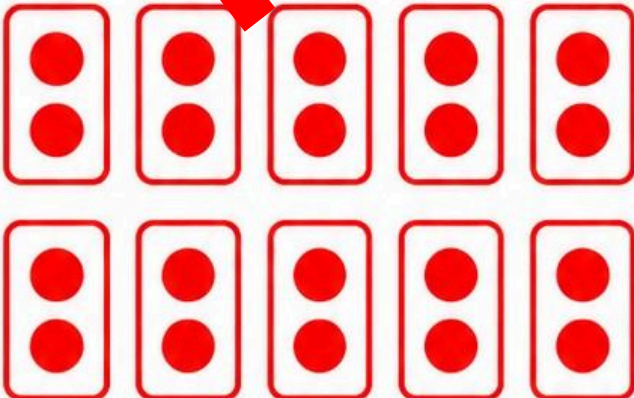
My check:

All 16 used. 4 in each tub.

2. 20 clips. Put 2 in each sleeve.

My model or drawing:

One valid model:



My counting strategy:

Count in twos to 20.

I can fill 10 sleeves.

My check:

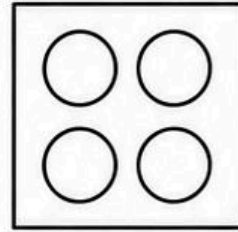
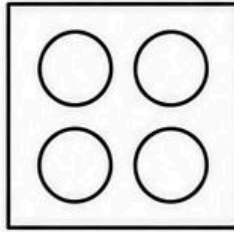
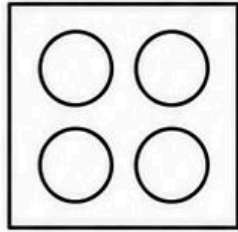
10 pairs make 20. All clips used once.

# Build Repeated Groups

Name: \_\_\_\_\_

Count the items altogether.

1. 3 boxes. Each box has 4 counters.



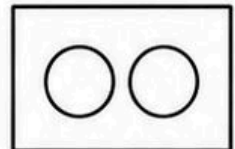
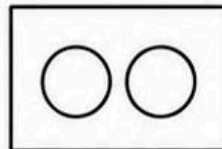
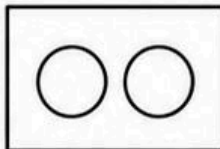
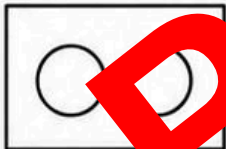
My model or drawing:

My counting strategy:

My check:

\_\_\_\_\_ counters altogether.

2. 5 trays. Each tray has 2 counters.



My model or drawing:

My counting strategy:

My check:

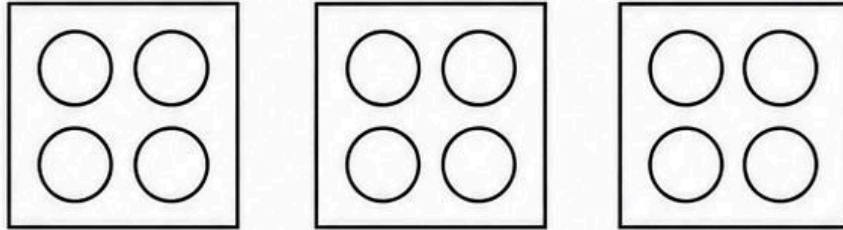
\_\_\_\_\_ counters altogether.

# ANSWERS

Name: ANSWERS

Count the items altogether.

1. 3 boxes. Each box has 4 counters.



My model or drawing:

One valid model:

$$4 + 4 + 4 = 12$$

12 counters altogether.

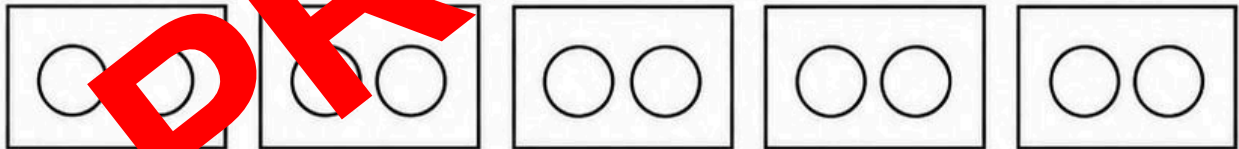
My counting strategy:

$$4 + 4 + 4 = 12$$

My check:

3 fours make 12.

2. 5 trays. Each tray has 2 counters.



My model or drawing:

One valid model:

$$2 + 2 + 2 + 2 + 2 = 10$$

10 counters altogether.

My counting strategy:

$$2 + 2 + 2 + 2 + 2 = 10$$

My check:

5 twos make 10.

# Inspect the Packing Claim

Name: \_\_\_\_\_

Test each claim. Show your correction.

## 1. 12 objects. Put 3 in each pack.

Claim to check: 5 full packs.

My model or drawing:

My counting strategy:

My check:

My verdict: \_\_\_\_\_ Correct amount: \_\_\_\_\_ packs.

## 2. 16 objects. Put 4 in each group.

Claim to check: 4 full groups use all 16 objects.

My model or drawing:

My counting strategy:

My check:

My verdict: \_\_\_\_\_ Correct amount: \_\_\_\_\_ groups.

# ANSWERS

Name: ANSWERS

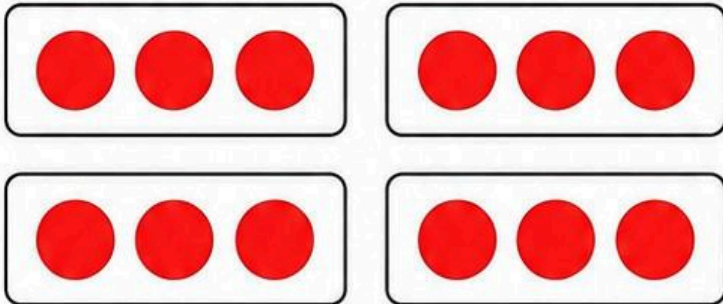
Test each claim. Show your correction.

## 1. 12 objects. Put 3 in each pack.

Claim to check: 5 full packs.

My model or drawing:

One valid model



My counting strategy:

$$3 + 3 + 3 + 3 = 12$$

My check:  
5 packs need 15. We have 12.

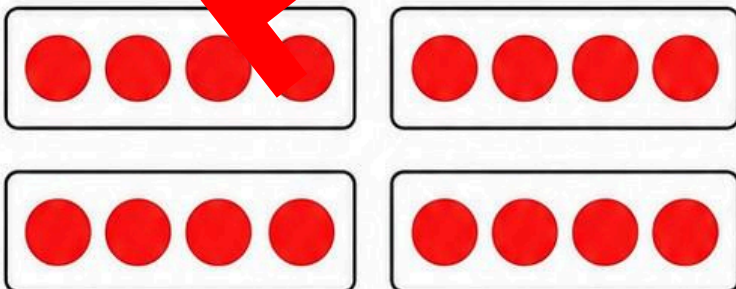
My verdict: False

Correct amount: 4 packs.

## 2. 16 objects. Put 4 in each group.

Claim to check: 3 full groups use all 16 objects.

My model or drawing:



My counting strategy:

$$4 + 4 + 4 + 4 = 16$$

My check:

3 groups use 12. 4 are left to place.

My verdict: False

Correct amount: 4 groups.

# Now Find Each

Name: \_\_\_\_\_

Share equally. Check the total.

1. 10 cards for 2 teams. How many cards for each team?

My model or drawing:

Team A

Team B

My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Each team has \_\_\_\_\_ cards each.

My check:

\_\_\_\_\_  
\_\_\_\_\_

2. 12 counters for 4 tables. How many counters for each table?

My model or drawing:

Table A

Table B

Table C

Table D

My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Each table has \_\_\_\_\_ counters each.

My check:

\_\_\_\_\_  
\_\_\_\_\_

# ANSWERS

Name: ANSWERS

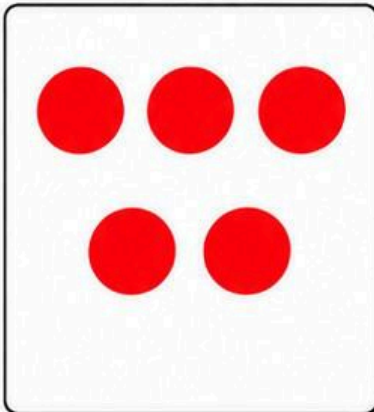
Share equally. Check the total.

1. 10 cards for 2 teams. How many cards for each team?

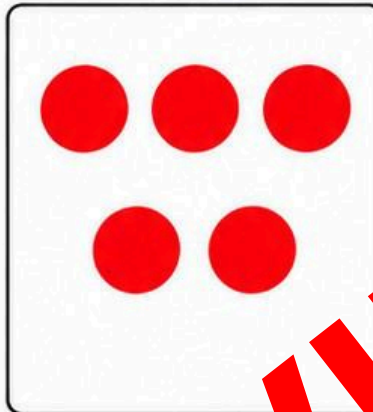
My model or drawing:

One valid model

Team A



Team B



My counting strategy:

Deal one to each team  
until all 10 are used.

Each team has 5 cards each.

My check:

$5 + 5 = 10$ . Equal amounts.

2. 12 counters for 4 tables. How many counters for each table?

My model or drawing:

Table A

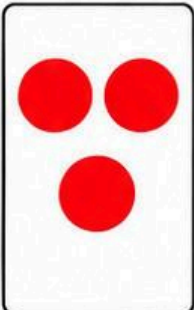


Table B

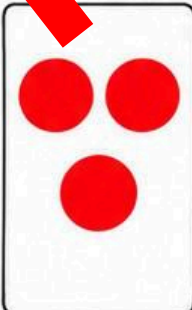


Table C

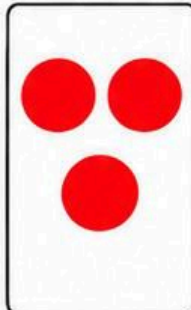
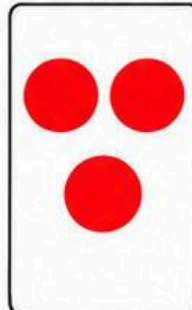


Table D



My counting strategy:

Deal one to each table  
until all 12 are used.

Each table has 3 counters each.

My check:

$3 + 3 + 3 + 3 = 12$ . Equal amounts.

# Share and Verify

Name: \_\_\_\_\_

Make equal shares. Use every item once.

1. 15 tokens for 3 teams. How many tokens for each team?

My model or drawing:

Team A

Team B

Team C

My counting strategy:

---

---

Each team gets \_\_\_\_\_ tokens each.

My check: \_\_\_\_\_

2. 8 labels for 4 trays. How many labels for each tray?

My model or drawing:

Tray A

Tray B

Tray C

Tray D

My counting strategy:

---

---

Each tray gets \_\_\_\_\_ labels each.

My check: \_\_\_\_\_

# ANSWERS

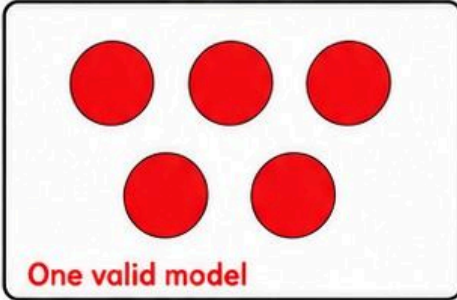
Name: ANSWERS

Make equal shares. Use every item once.

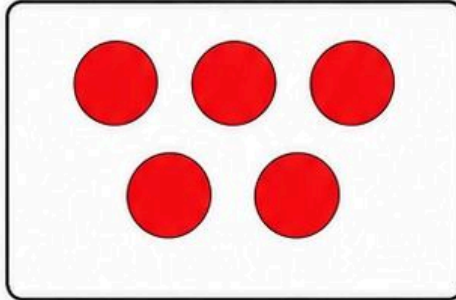
1. 15 tokens for 3 teams. How many tokens for each team?

My model or drawing:

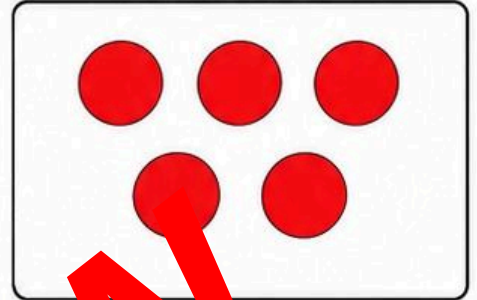
Team A



Team B



Team C



My counting strategy:

**Deal one to each team until all 15 are used.**

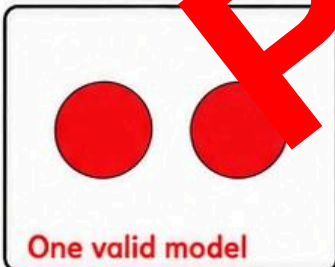
Each team gets 5 tokens each.

My check:  **$5 + 5 + 5 = 15$  Equal shares.**

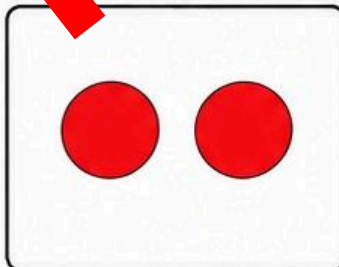
2. 8 labels for 4 trays. How many labels for each tray?

My model or drawing:

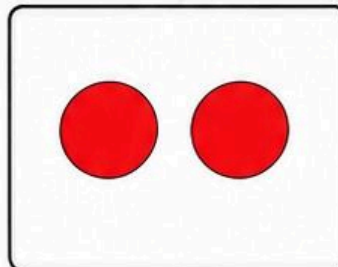
Tray A



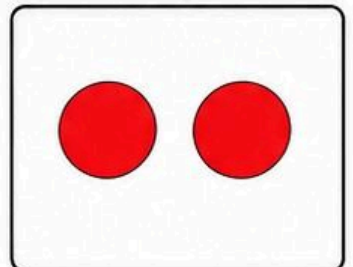
Tray B



Tray C



Tray D



My counting strategy:

**Deal one to each tray until all 8 are used.**

Each tray gets 2 labels each.

My check:  **$2 + 2 + 2 + 2 = 8$  Equal shares.**

# Same Total, Different Question

Name: \_\_\_\_\_

What do you need to find?

1. 12 items shared equally among 3 people.  
How many items each?

I need to find \_\_\_\_\_.

My model or drawing:

My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ items each.

My check:

\_\_\_\_\_  
\_\_\_\_\_

2. 12 items. Put 4 in each box.  
How many full boxes?

I need to find \_\_\_\_\_.

My model or drawing:

My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ boxes.

My check:

\_\_\_\_\_  
\_\_\_\_\_

# ANSWERS

Name: ANSWERS

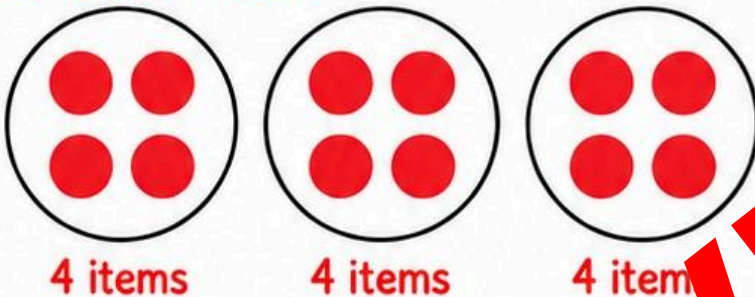
What do you need to find?

1. 12 items shared equally among 3 people.  
How many items each?

I need to find how many items each.

My model or drawing:

One valid model:



My counting strategy:

Deal one to each person  
until all 12 are used.

4 items each.

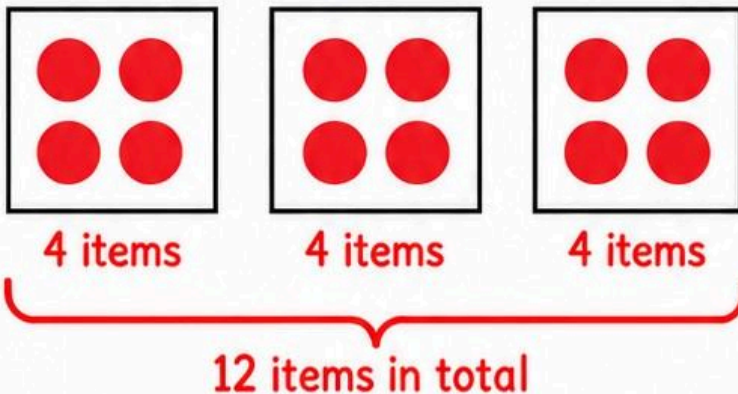
My check:

$$4 + 4 + 4 = 12.$$

2. 12 items. Put 4 in each box.  
How many full boxes?

I need to find how many boxes.

My model or drawing:



My counting strategy:

$$4 + 4 + 4 = 12$$

3 boxes.

My check:

3 full boxes. All 12 used.

# Make and Repair a Plan

Name: \_\_\_\_\_

Use the given items. Explain your check.

1. There are 16 items. Put 2 in each packet.  
How many packets?

My model or drawing:

My counting strategy:

---

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---

Contextual answer:

\_\_\_\_\_ packets.

My check:

---

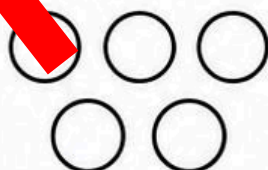
---

2. There are 8 items shared between 2 teams as 3 and 5.  
Make the shares equal.

Team A



Team B



My model or drawing (show the correction):

My counting strategy:

---

---

---

Contextual answer:

\_\_\_\_\_ items each.

My check:

---

---

# ANSWERS

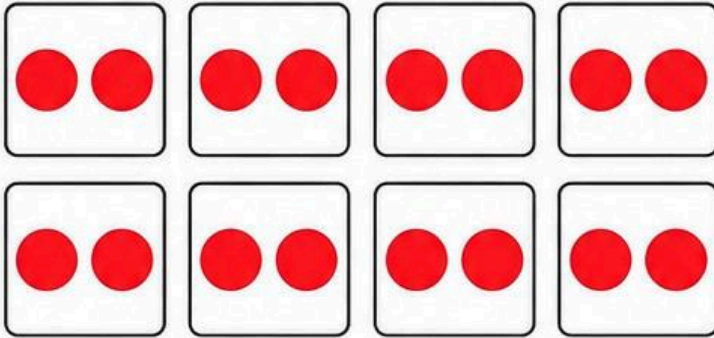
Name: ANSWERS

Use the given items. Explain your check.

1. There are 16 items. Put 2 in each packet.  
How many packets?

My model or drawing:

One valid model



My counting strategy:

Count in twos to 16.

Contextual answer:

8 packets.

My check:

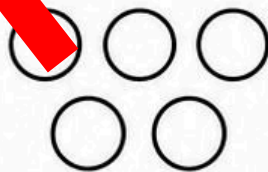
8 pairs make 16. All items used.

2. There are 8 items shared between 2 teams as 3 and 5.  
Make the shares equal.

Team A

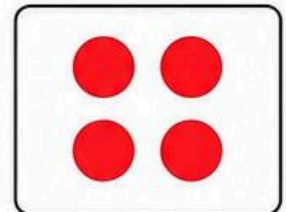
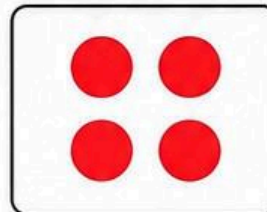


Team B



My model or drawing (show the correction):

One valid model



My counting strategy:

Move 1 from Team B to Team A.

Contextual answer:

4 items each.

My check:

$4 + 4 = 8$ . Both shares equal.

# Pack Checker Game

## Pairs • Complete rules

### GET READY

Use the 12 Pack Checker cards, two record sheets, the checking guides and the Blank Group Workspace. Prepare Counter Banks 1 and 2 (24 whole pieces) and the Two, Three and Four Recipient Mats. An adult may cut the pieces and read.

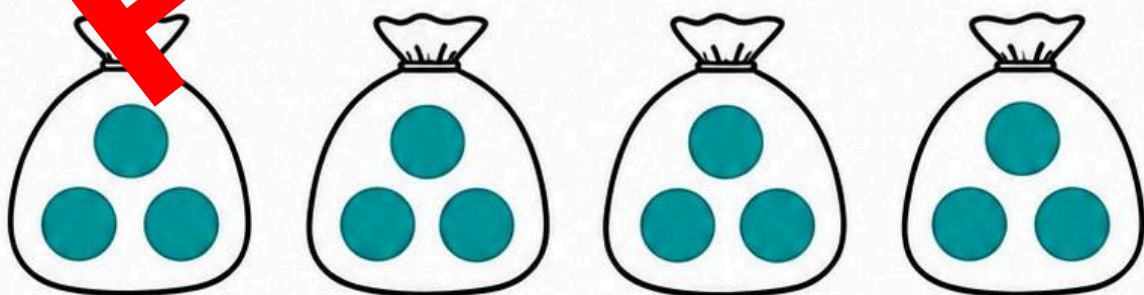
### PLAY SIX ROUNDS

1. Choose one card. Name the given amounts, the question and the claim.
2. Planner builds the exact collection on the right mat.
3. Checker works out the answer. Accent on correct the claim.
4. Explain the answer and check every item. Record your model, strategy and check.
5. Reset the collection. Swap roles for the next card.

Try the other six cards in that lesson.

### WORKED MODEL

12 items. Put 3 in each bag. Claim: 3 bags use all items.



False. 4 bags are needed. 3 bags use 9 and leave 3 to place.

### SUCCESS

Give evidence. Keep the original total. There is no race, timer or elimination.

# Pack Checker Cards P1 – P6

**P1** 6 counters, 2 per pack.  
Claim to check: 3 packs.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

**P2** 8 clips, 2 per bag.  
Claim to check: 3 bags.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

**P3** 9 labels, 3 per box.  
Claim to check: 3 boxes.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

**P4** 12 cards, 3 per packet.  
Claim to check: 5 packets.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

**P5** 16 counters, 4 per tub.  
Claim to check: 4 tubs.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

**P6** 20 clips, 2 per sleeve.  
Claim to check: 9 sleeves.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_

\_\_\_\_\_

PREVIEW

# Pack Checker Cards P7 – P12

**P7**

3 boxes with 4 items in each.  
Claim to check: 12 altogether.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

**P8**

4 trays with 3 items in each.  
Claim to check: 16 altogether.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

**P9**

12 cards shared among 3 teams.  
Claim to check: 4 each.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

**P10**

12 labels shared among 4 tables.  
Claim to check: 3 each.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

**P11**

18 counters, 3 per pack.  
Claim to check: 5 packs.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

**P12**

10 cards shared among 2 teams.  
Claim to check: 6 each.

Verdict: \_\_\_\_\_

Right amount: \_\_\_\_\_

Check: \_\_\_\_\_  
\_\_\_\_\_

# Pack Checker Record P1–P6

Name: \_\_\_\_\_

Date: \_\_\_\_\_

| Card | My model or strategy | Accept or correct | Right amount and meaning | My check |
|------|----------------------|-------------------|--------------------------|----------|
| P1   |                      |                   |                          |          |
| P2   |                      |                   |                          |          |
| P3   |                      |                   |                          |          |
| P4   |                      |                   |                          |          |
| P5   |                      |                   |                          |          |
| P6   |                      |                   |                          |          |

You may show a model, point or explain. An adult may record your thinking.

# Pack Checker Record P7-P12

Name: \_\_\_\_\_

Date: \_\_\_\_\_

| Card | My model or strategy | Accept or correct | Right amount and meaning | My check |
|------|----------------------|-------------------|--------------------------|----------|
| P7   |                      |                   |                          |          |
| P8   |                      |                   |                          |          |
| P9   |                      |                   |                          |          |
| P10  |                      |                   |                          |          |
| P11  |                      |                   |                          |          |
| P12  |                      |                   |                          |          |

You may show a model, point or explain. An adult may record your thinking.

# ANSWERS

**P1** 6 counters, 2 per pack.  
Claim to check: 3 packs.

Verdict: TRUE

Right amount: 3 packs

Check:  $2 + 2 + 2 = 6$

**P2** 8 clips, 2 per bag.  
Claim to check: 3 bags.

Verdict: FALSE

Right amount: 4 bags

Check: 3 bags use 6. 2 left.

**P3** 9 labels, 3 per box.  
Claim to check: 3 boxes.

Verdict: TRUE

Right amount: 3 boxes

Check:  $3 + 3 + 3 = 9$

**P4** 12 cards, 3 per packet.  
Claim to check: 5 packets.

Verdict: FALSE

Right amount: 4 packets

Check: 5 packets need 15. We have 12.

**P5** 16 counters, 4 per tub.  
Claim to check: 4 tubs.

Verdict: TRUE

Right amount: 4 tubs

Check:  $4 + 4 + 4 + 4 = 16$

**P6** 20 clips, 2 per sleeve.  
Claim to check: 9 sleeves.

Verdict: FALSE

Right amount: 10 sleeves

Check: 9 sleeves use 18. 2 left.

# ANSWERS

**P7**

3 boxes with 4 items in each.  
Claim to check: 12 altogether.

Verdict: TRUE

Right amount: 12 altogether

Check:  $4 + 4 + 4 = 12$

**P8**

4 trays with 3 items in each.  
Claim to check: 16 altogether.

Verdict: FALSE

Right amount: 12 altogether

Check:  $3 + 3 + 3 + 3 = 12$

**P9**

12 cards shared among 3 teams.  
Claim to check: 4 each.

Verdict: TRUE

Right amount: 4 each

Check:  $4 + 4 + 4 = 12$

**P10**

12 labels shared among 4 tables.  
Claim to check: 3 each.

Verdict: FALSE

Right amount: 4 each

Check: 3 each uses 12. 4 labels left.

**P11**

18 counters, 3 per pack.  
Claim to check: 5 packs.

Verdict: FALSE

Right amount: 6 packs

Check: 5 packs use 15. 3 left.

**P12**

10 cards shared among 2 teams.  
Claim to check: 6 each.

Verdict: FALSE

Right amount: 5 each

Check: 6 each needs 12. We have 10.

# Blank Group Workspace

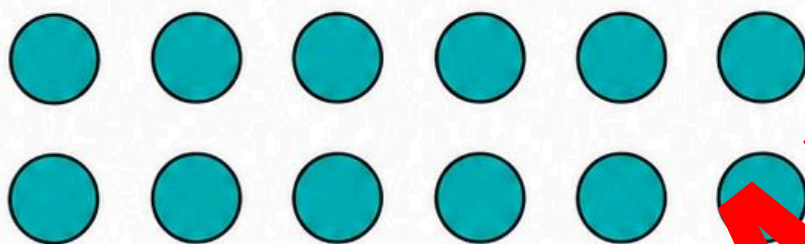
Make full groups in the spaces you use. Leave spare spaces empty.

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Use the supplied counters. Count only groups you have filled.

# Counter Bank 1

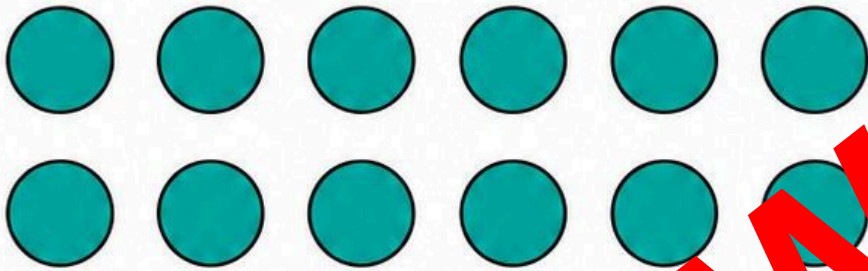
Cut around each whole counter. One counter stands for one item.



Use both banks for 24 counters.

# Counter Bank 2

Cut around each whole counter. One counter stands for one item.



**PREVIEW**

Use both banks for 24 counters.

# Two Recipient Mat

Share the given items equally. Check every item.

**Recipient A**

**Recipient B**

**PREVIEW**

Use the whole counters from both banks when needed.

# Three Recipient Mat

Share the given items equally. Check every item.

**Recipient A**

**Recipient B**

**Recipient C**

Use the whole counters from both banks when needed.

# Four Recipient Mat

Share the given items equally. Check every item.

**Recipient A**



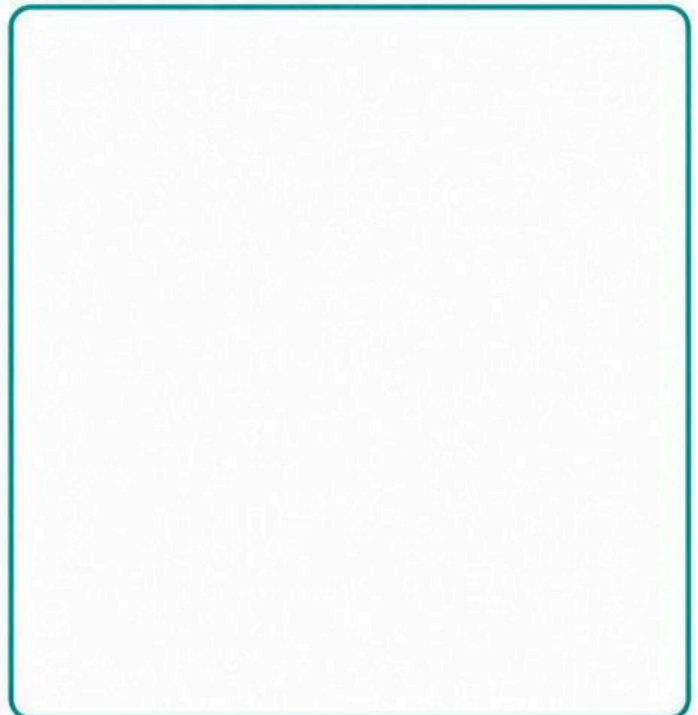
**Recipient B**



**Recipient C**



**Recipient D**



Use the whole counters from both banks when needed.

# Design a Classroom Pack

Planning kit • Pairs

## GET READY

Prepare Counter Banks 1 and 2, Two, Three and Four Recipient Mats, the Blank Group Workspace, 12 Supply Plan Challenge cards, two record sheets and the matching checking guides. An adult may cut and read.

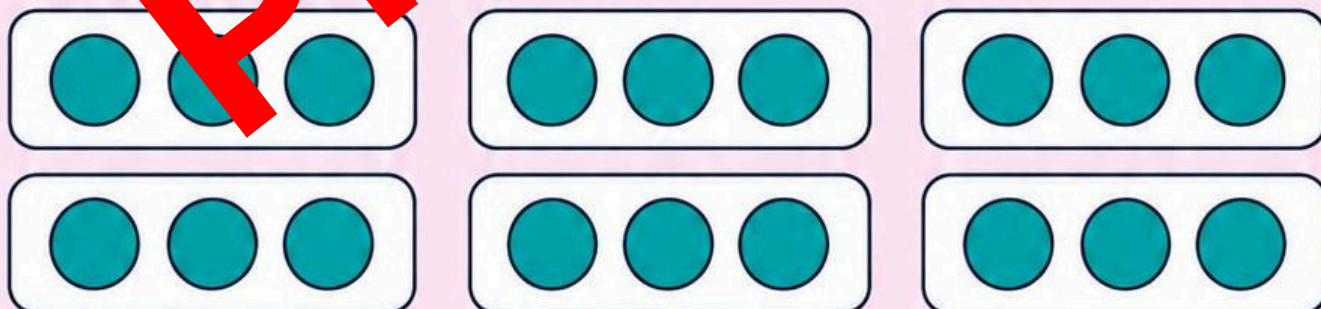
## PLAN AND CHECK

- 1 Choose a challenge. Name what is given and what to find.
- 2 Count out the exact collection. Choose the right model.
- 3 Make a faithful model. Work out the answer.
- 4 Name what your answer counts. Check equal amounts and every item.
- 5 Record your model, strategy, answer and check. Swap planner and checker.

Try three cases each session. Use making, sharing and finding totals across the week.

## WORKED MODEL

18 items. Put 3 in each pack.



6 packs. Count 3, 6, 9, 12, 15, 18.

## EXTEND AFTER THE CORE

Check with a different model or try an adult-selected 24-item challenge.

Counting, dealing and known number facts are valid strategies. No timer or required quiz score.

# Supply Plan Challenges D1 – D6

## D1

12 erasers. Put 3 in each bag.  
How many bags?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D2

16 clips. Put 4 in each box.  
How many boxes?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D3

20 stickers. Put 2 in each sleeve.  
How many sleeves?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D4

18 buttons. Put 3 in each tub.  
How many tubs?

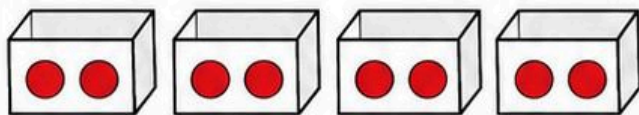
Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D5

4 boxes, 2 markers in each.  
How many markers altogether?



Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D6

5 trays, 3 counters in each.  
How many counters altogether?



Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

Use the supplied mats and a record sheet.

# Supply Plan Challenges D7 – D12

## D7

Share 12 cards equally among 2 teams.  
How many cards each?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D8

Share 15 tokens equally among 3 teams.  
How many tokens each?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D9

Share 16 pencils equally among 4 tables.  
How many pencils each?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D10

Share 20 labels equally among 4 trays.  
How many labels each?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D11

Share 12 counters equally among 4 supply kits.  
How many counters in each kit?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

## D12

Share 18 buttons equally among 3 tables.  
How many buttons in each table?

Answer: \_\_\_\_\_

Strategy: \_\_\_\_\_

Check: \_\_\_\_\_

Use the supplied mats and a record sheet.

# Supply Plan Record D1 – D6

Name: \_\_\_\_\_ Date: \_\_\_\_\_

| Card | Given amounts and question | My model or strategy | Answer with meaning | My check |
|------|----------------------------|----------------------|---------------------|----------|
| D1   |                            |                      |                     |          |
| D2   |                            |                      |                     |          |
| D3   |                            |                      |                     |          |
| D4   |                            |                      |                     |          |
| D5   |                            |                      |                     |          |
| D6   |                            |                      |                     |          |

Show a model, point or explain. An adult may record your thinking.

# Supply Plan Record D7–D12

Name: \_\_\_\_\_ Date: \_\_\_\_\_

| Card | Given amounts and question | My model or strategy | Answer with meaning | My check |
|------|----------------------------|----------------------|---------------------|----------|
| D7   |                            |                      |                     |          |
| D8   |                            |                      |                     |          |
| D9   |                            |                      |                     |          |
| D10  |                            |                      |                     |          |
| D11  |                            |                      |                     |          |
| D12  |                            |                      |                     |          |

Show a model, point or explain. An adult may record your thinking.

# ANSWERS

## D1

12 erasers. Put 3 in each bag.  
How many bags?

Answer: 4 bags

Strategy: Count in threes

Check: 4 threes make 12

## D2

16 clips. Put 4 in each box.  
How many boxes?

Answer: 4 boxes

Strategy: Count in fours

Check: 4 fours make 16

## D3

20 stickers. Put 2 in each sleeve.  
How many sleeves?

Answer: 10 sleeves

Strategy: Count in twos

Check: 10 pairs make 20

## D4

18 buttons. Put 3 in each tub.  
How many tubs?

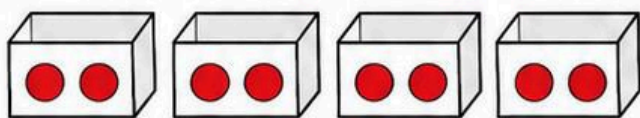
Answer: 6 tubs

Strategy: Count in threes

Check: 6 threes make 18

## D5

4 boxes, 2 markers in each.  
How many markers altogether?



Answer: 8 markers in all

Strategy:  $2 + 2 + 2 + 2$

Check: All 8 accounted for

## D6

5 trays, 3 counters in each.  
How many counters altogether?



Answer: 15 counters in all

Strategy: Count all counters

Check: 5 threes make 15

# ANSWERS

## D7

Share 12 cards equally among 2 teams.  
How many cards each?

Answer: 6 cards each

Strategy: Deal one each, repeat

Check:  $6 + 6 = 12$

## D8

Share 15 tokens equally among 3 teams.  
How many tokens each?

Answer: 5 tokens each

Strategy: Deal one each, repeat

Check:  $5 + 5 + 5 = 15$

## D9

Share 16 pencils equally among 4 tables.  
How many pencils each?

Answer: 4 pencils each

Strategy: Deal one each, repeat

Check:  $4 + 4 + 4 + 4 = 16$

## D10

Share 20 labels equally among 4 trays.  
How many labels each?

Answer: 5 labels each

Strategy: Deal one each, repeat

Check:  $5 + 5 + 5 + 5 = 20$

## D11

Share 12 counters equally among 4 supply kits.  
How many counters in each kit?

Answer: 3 counters per kit

Strategy: Deal one each, repeat

Check:  $3 + 3 + 3 + 3 = 12$

## D12

Share 18 buttons equally among 3 tables.  
How many buttons in each table?

Answer: 6 buttons per table

Strategy: Deal one each, repeat

Check:  $6 + 6 + 6 = 18$

# Assessment 1: Pack or Share

Name: \_\_\_\_\_

Show how you know. You may move pieces, draw or explain.

1. There are 15 beads. Put 3 in each bag. How many bags?

My model or drawing:

My counting strategy:

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---

My answer:

\_\_\_\_\_ bags

My check:

---

---

2. There are 14 clips for 2 craft teams. Share them equally. How many clips each?

My model or drawing:

My counting strategy:

---

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---

My answer:

\_\_\_\_\_ clips each.

My check:

---

---

# ANSWERS

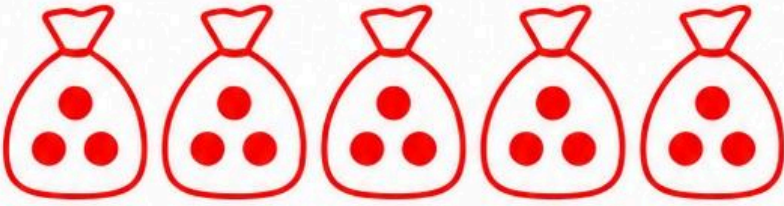
Name: ANSWERS

Show how you know. You may move pieces, draw or explain.

1. There are 15 beads. Put 3 in each bag. How many bags?

My model or drawing:

One valid model



My counting strategy:

Count in threes: 3, 6, 9, 12, 15.

My answer:

5 bags

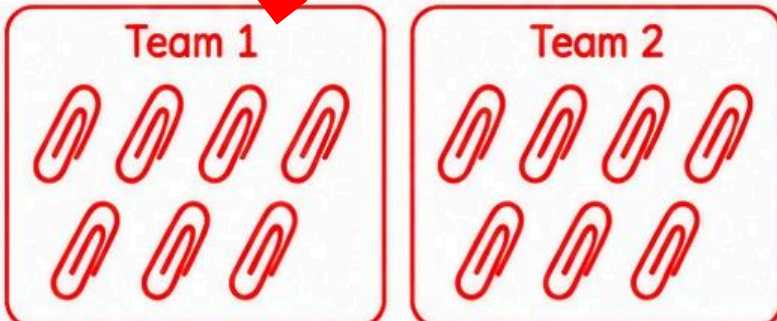
My check:

5 groups of 3 use all 15 beads.

2. There are 14 clips for 2 craft teams. Share them equally. How many clips each?

My model or drawing:

One valid model



My counting strategy:

Share one clip at a time between both teams.

My answer:

7 clips for each team.

My check:

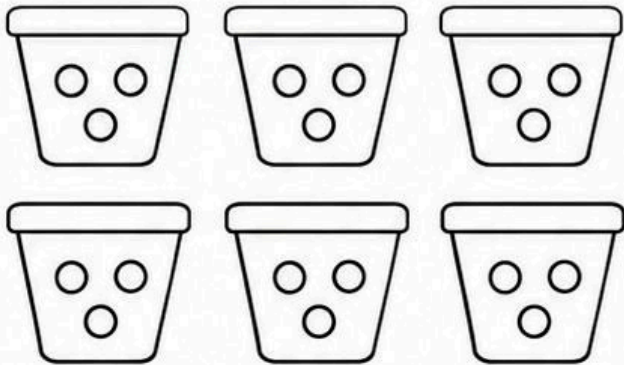
7 and 7 make 14; both teams have the same amount.

# Assessment 2: Total and Repair

Name: \_\_\_\_\_

Show how you know. Keep the given items.

1. 6 pots. Each pot has 3 seeds. How many seeds altogether?



My model or drawing:

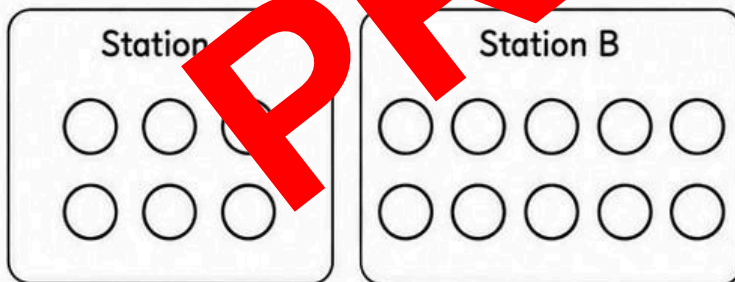
My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ seeds altogether.

My check:

2. 16 cards between 2 stations. 6 and 10. Make the shares equal.



My model or drawing (after making the shares equal):

My counting strategy:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ cards each.

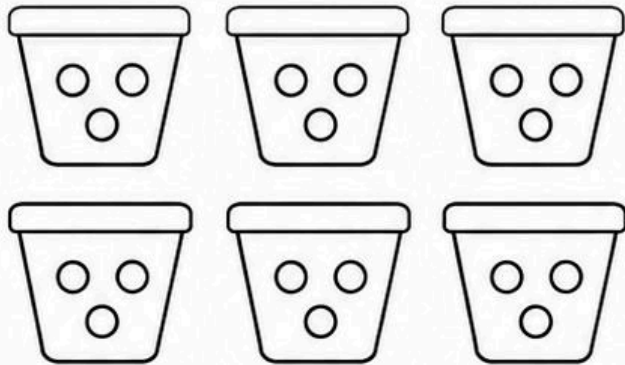
My check:

# ANSWERS

Name: ANSWERS

Show how you know. Keep the given items.

1. 6 pots. Each pot has 3 seeds. How many seeds altogether?



My model or drawing:

One valid model

$$3 + 3 + 3 + 3 + 3 + 3 = 18$$

My counting strategy:

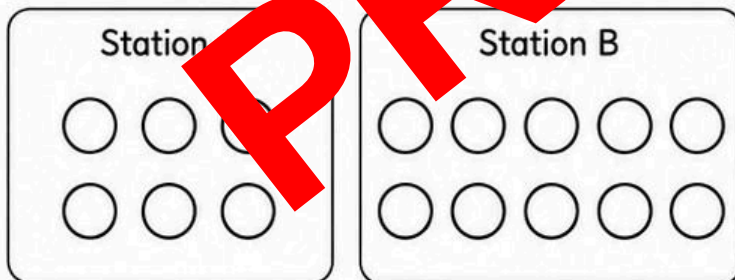
Count six groups of three.

18 seeds altogether.

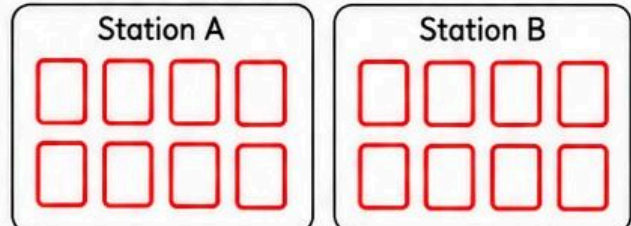
My check:

6 groups of 3 make 18 seeds.

2. 16 cards between 2 stations. 6 and 10. Make the shares equal.



My model or drawing (after making the shares equal):



My counting strategy:

Move 2 cards from Station B to Station A.

8 cards at each station.

My check:

8 and 8 make 16; both stations have equal amounts.

# Practical observation record

Observe across Lessons 3-5. Ask the student to show the given quantities, explain the unknown, make a model, give an answer with meaning, and check it.

**Fresh teacher probes - keep hidden until the attempt.**

**Teacher-only examples:**

Pack 14 counters in groups of 2: 7 groups.

Share 18 counters between 3 teams: 6 each.

Show 3 groups of 5 counters: 15 altogether.

| Student | Situation / unknown | Model / strategy | Answer / check | Acceptance / support | Next teaching step |
|---------|---------------------|------------------|----------------|----------------------|--------------------|
|         |                     |                  |                |                      |                    |
|         |                     |                  |                |                      |                    |
|         |                     |                  |                |                      |                    |
|         |                     |                  |                |                      |                    |
|         |                     |                  |                |                      |                    |
|         |                     |                  |                |                      |                    |

Record reading, movement or communication support separately from mathematical prompts.  
Accept objects, drawing, pointing, speaking or adult recording. No speed score.

# ANSWERS

## Assessment marking guide

### Packing and sharing assessment

15 beads, 3 in each bag: 5 bags. One model is five groups of three.  
Check all 15 beads are used.

14 clips between 2 craft teams: 7 clips each.  
One model is two equal groups of seven.  
Check  $7 + 7 = 14$ .

### Groups and repair assessment

6 seed pots with 3 seeds in each: 18 seeds altogether.  
Check six groups of three.

16 cards, initially 6 at Station A and 10 at Station B: 8 cards each.  
Move 2 from B to A.  
Check  $8 + 8 = 16$  and both amounts match.

### Use the whole evidence set

Combine the two assessment sheets with practical observations and discussion. Accept any correct model or strategy that preserves the givens and explains the answer.

- |                                             |
|---------------------------------------------|
| Identifies the situation and unknown.       |
| Represents every given quantity accurately. |
| Uses an equal-group strategy.               |
| States what the answer means and checks it. |

### Record support and next steps

Separate access help from mathematical prompts. Students may move objects, draw, point, speak or use adult recording. Note a specific misconception and the next teaching step. Do not grade reading, cutting speed, optional larger totals or spare-item extension tasks. No quiz percentage cut-off.

# Equal-group problem solving rubric

| Criterion                    | Needs support                                        | Developing                                                     | Consistent                                                       | Extending                                                          |
|------------------------------|------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Situation and unknown</b> | Needs mathematical prompts to identify what to find. | Names some givens; sometimes confuses groups, each or total.   | Names givens and correctly identifies groups, each or total.     | Explains how changing the question changes the answer meaning.     |
| <b>Accurate model</b>        | Loses or adds items; groups do not match the givens. | Builds a useful model; corrects quantity errors with a prompt. | Represents every given quantity correctly in equal groups.       | Compares two valid models and explains why both fit.               |
| <b>Strategy</b>              | Needs help to organise or count the collection.      | Uses a workable approach with some mathematical prompting.     | Uses systematic counting, grouping, sharing or number knowledge. | Explains an efficient approach and why it works.                   |
| <b>Meaning and check</b>     | Gives an unexplained number or does not check.       | Names the answer meaning; checks with a prompt.                | States groups, each or total; checks equality and all items.     | Justifies the answer and explains why rearranging keeps the total. |

**Evidence across sheets and practical observations:**

**Next teaching step:**

Record reading, movement and communication support separately from mathematical prompts. Accept objects, drawings, pointing, speech or adult recording. Judge core tasks within 20; optional extensions, speed and reading are not criteria.

# Pack, Group and Check Year 1



# What do we need to find?

The story gives some counts.  
Find groups, each, and the total.

GROUPS

How many  
packs?

EACH

How many in  
each?

TOTAL

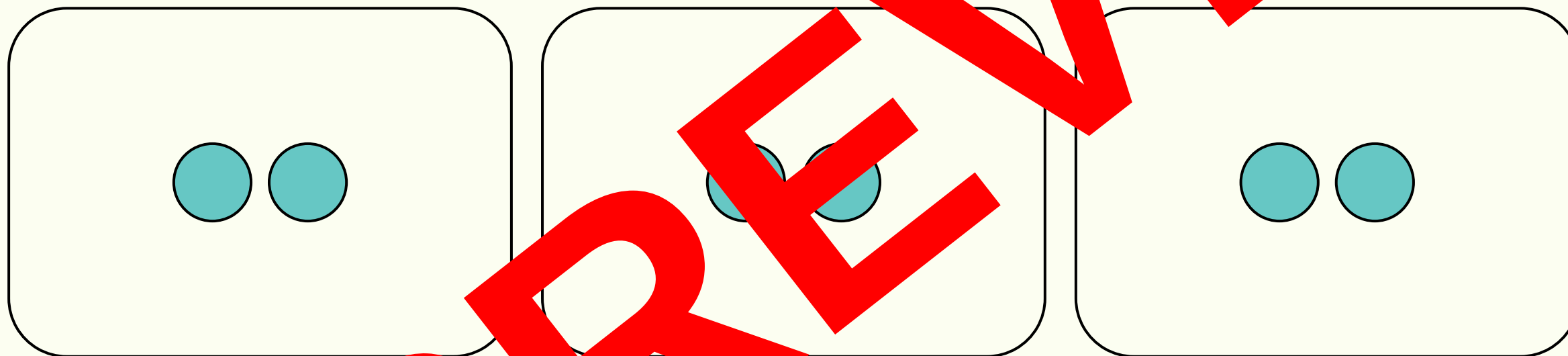
How many  
altogether?

Make a model. Use a strategy. Say what your answer means. Check.



Pack two in each

6 counters. Put 2 in each pack  
Count only the tens boxes

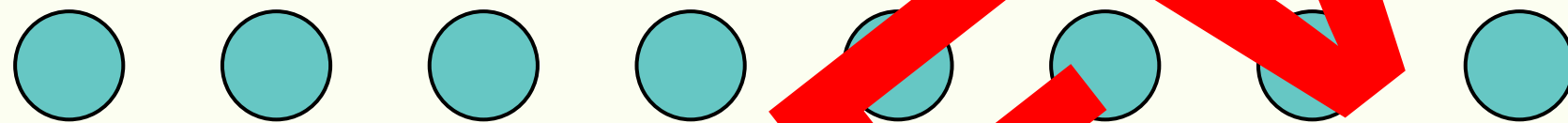


3 full packs. Two in each. All 6 counters are used.



# Your turn: make packages

8 clips. Put 2 in each bag.  
How many full bags? Show your model.

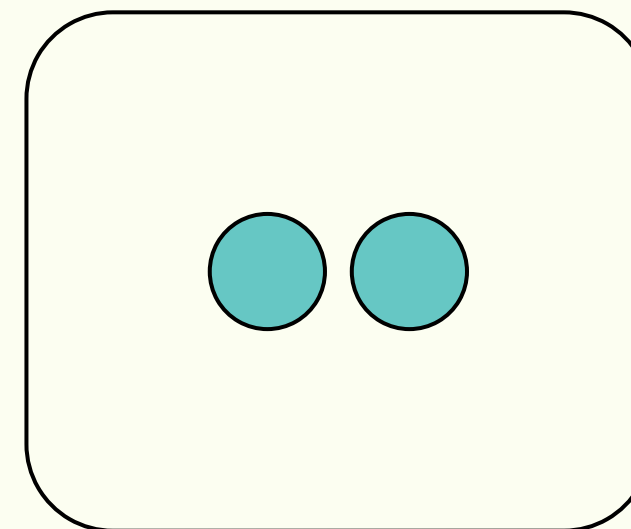
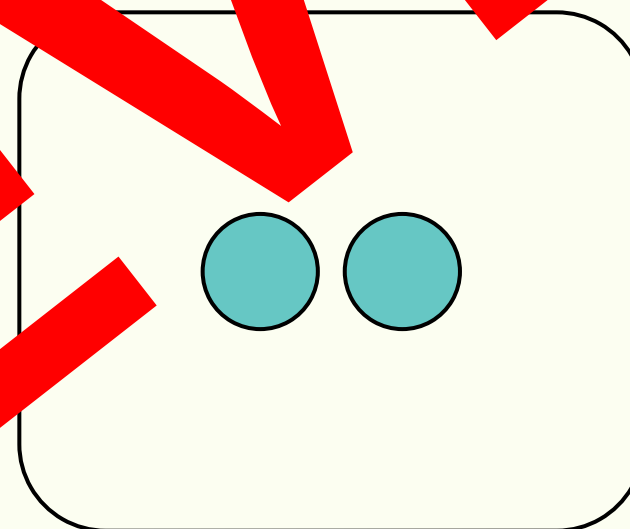
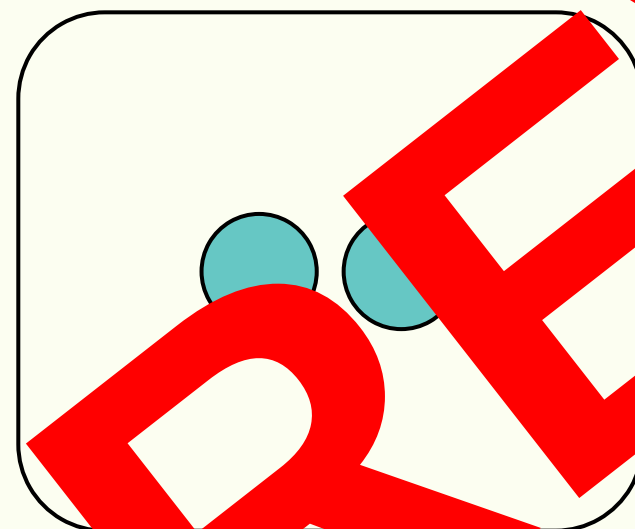
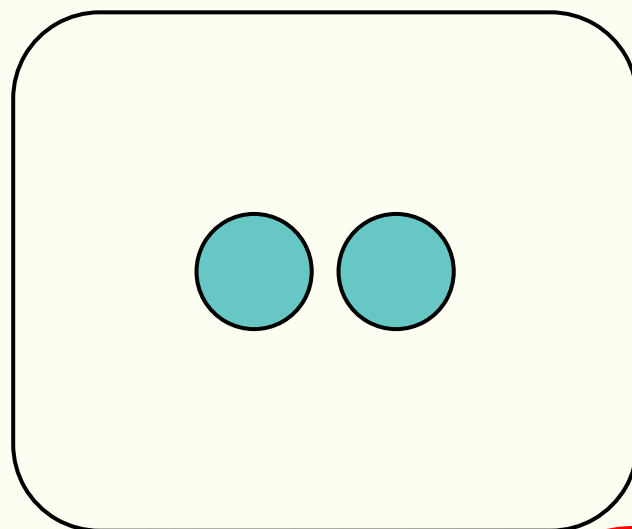


Full bags: \_\_\_\_\_ What does your answer count?



# Check your packs

8 clips, 2 in each pack.  
Four equal groups use every clip.

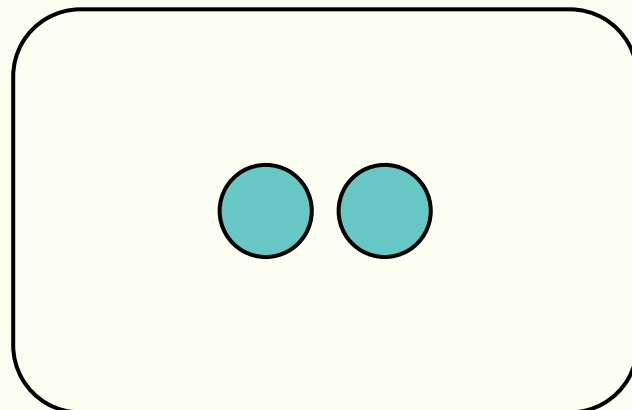


4 full bags. Count 2, 4, 6, 8 to check.

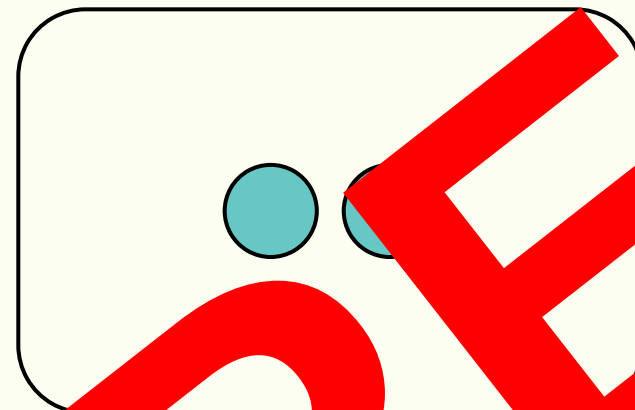


# Count and name the answer

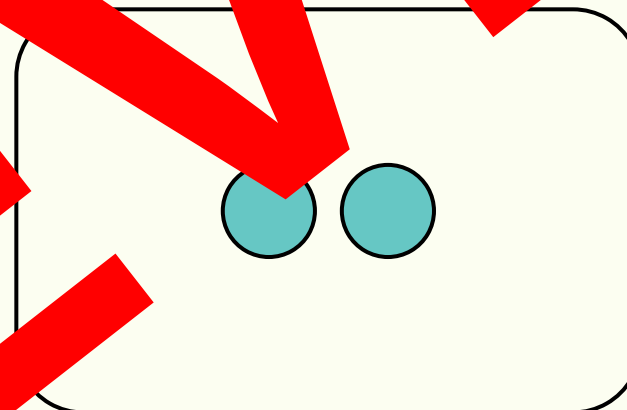
Count the items in the 1 pair.  
Then count the usual groups.



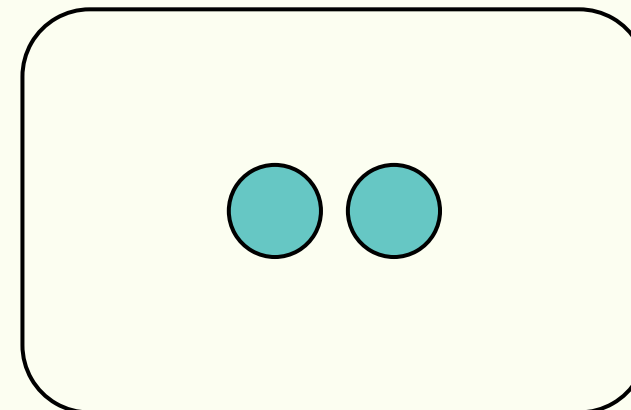
2



4



6



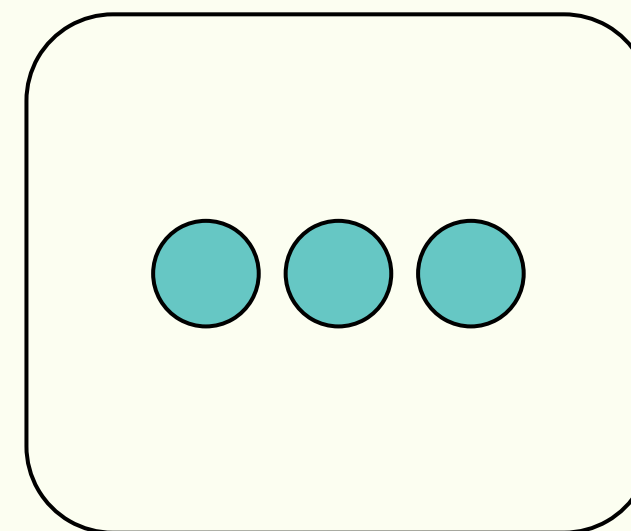
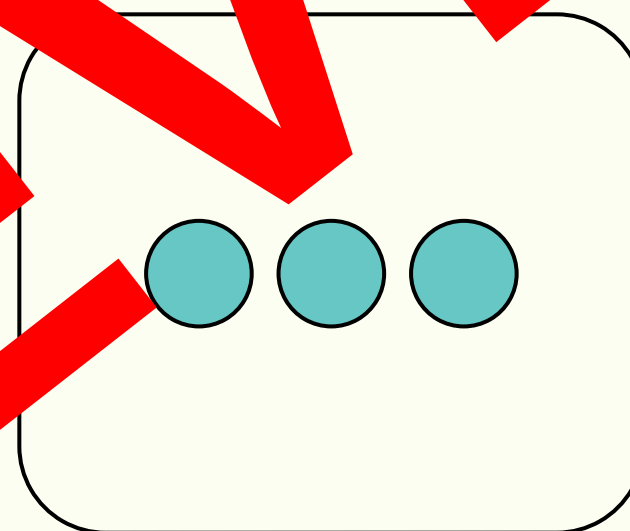
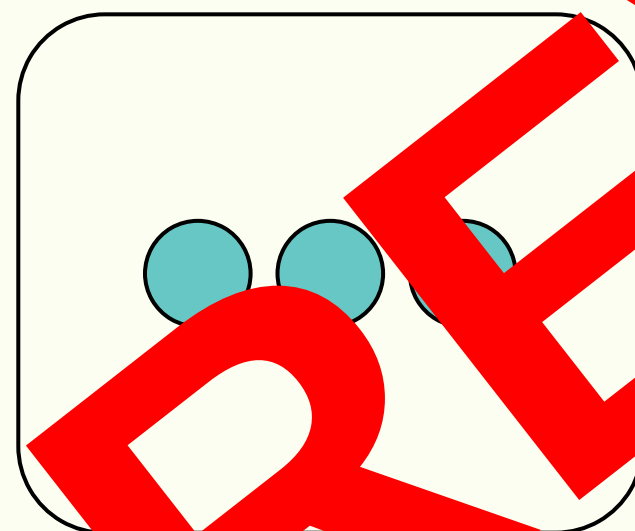
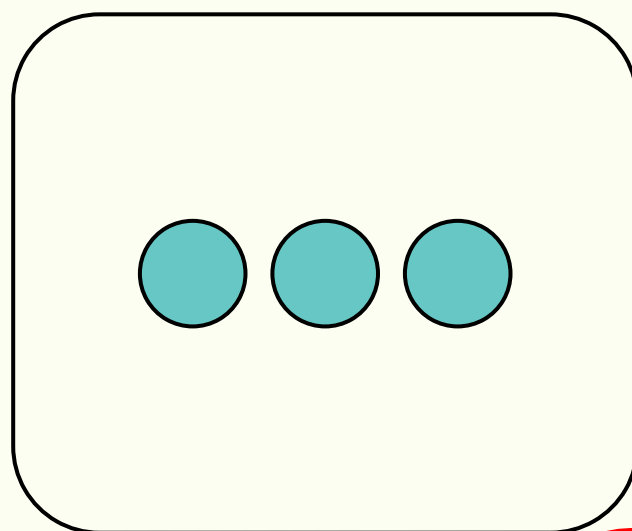
8

8 names the total clips. 4 names the full bags.



# Three in each bag

12 labels. Put 3 in each bag.  
Count the bags, then check on the labels.

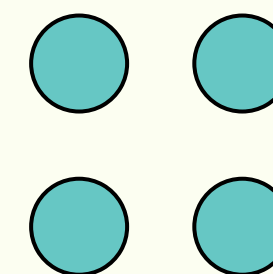
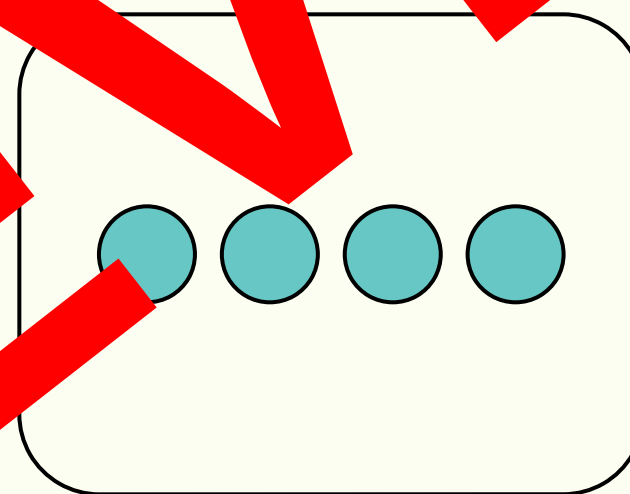
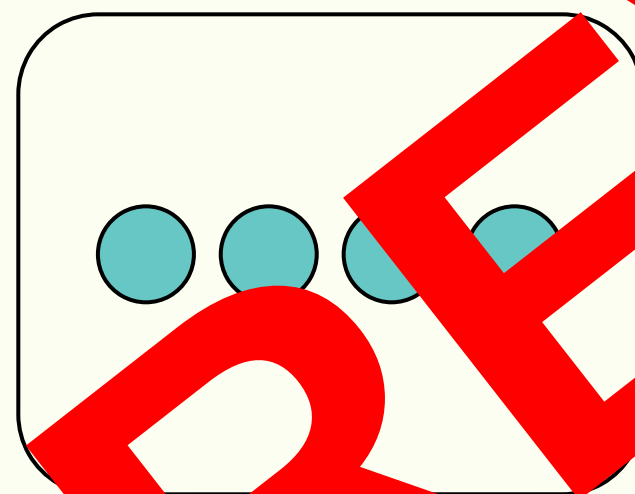
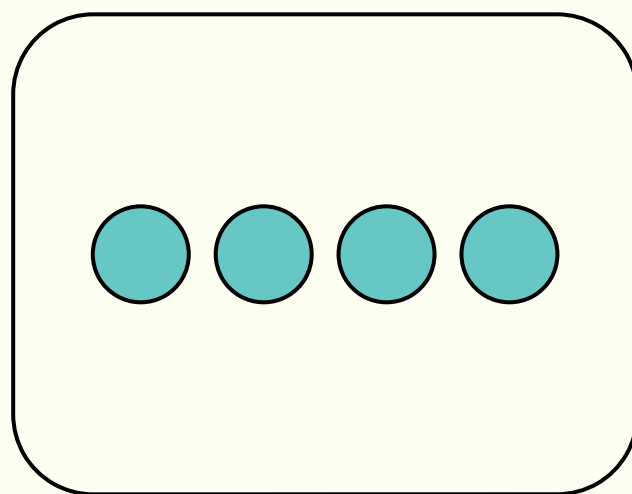


4 bags. Three in each. Count 3, 6, 9, 12.



# Check this claim

16 counters. Put 4 in each box.  
Claim: 3 boxes use all the counters.



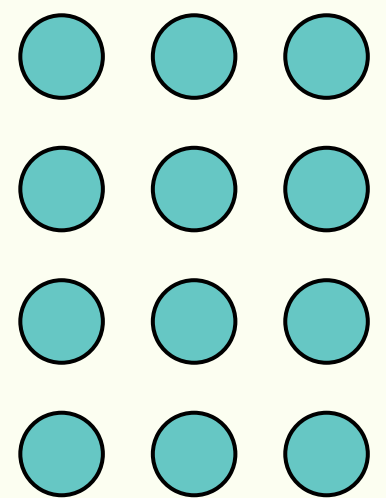
Still unused

Correct: 4 boxes. Three boxes use 12; 4 counters still need a box.



# Move the counters

12 counters. Put 3 in each group.  
Move the counters in edit view or use your pieces.



|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Used groups: \_\_\_\_\_ Leave spare zones empty. Check all 12.



# Check your model

4 used groups, with 3 counters in each.  
The spare zones are still empty.

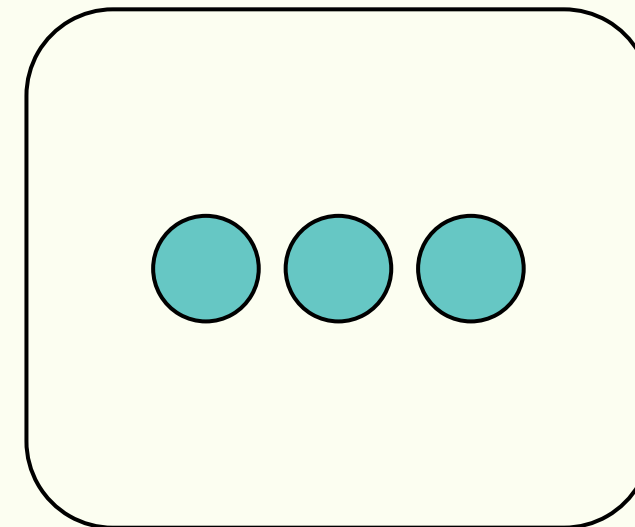
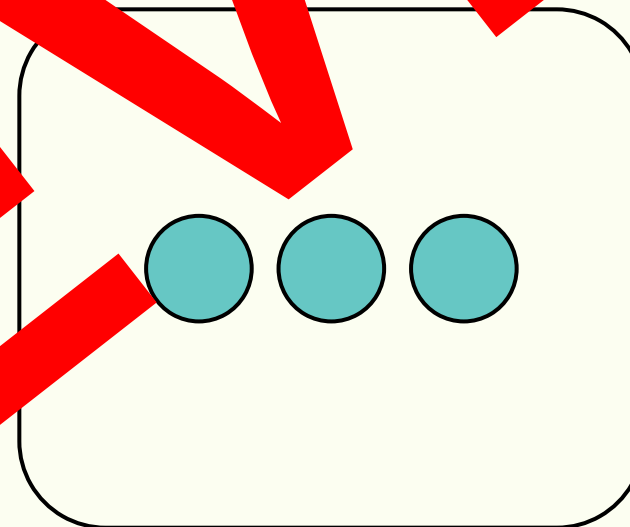
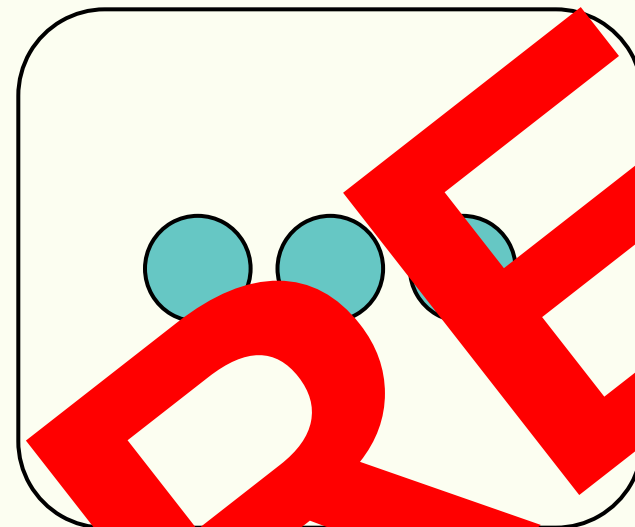
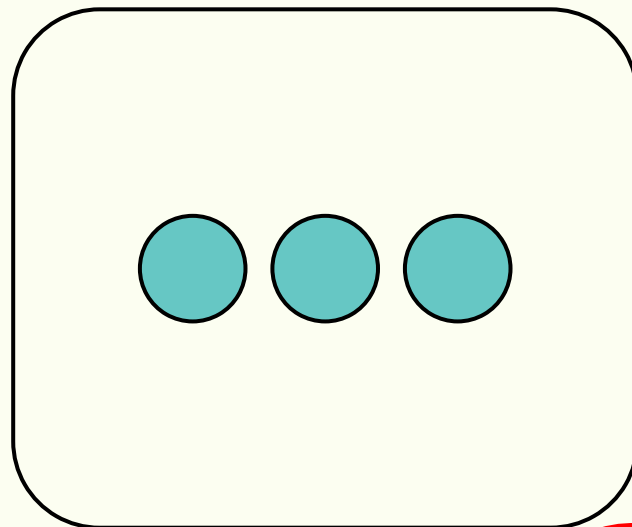
|       |       |       |
|-------|-------|-------|
| ● ● ● | ● ● ● | ● ● ● |
| ● ●   |       |       |
|       |       |       |
|       |       |       |

Count 3, 6, 9, 12. Every counter is used once.



# Now find the total

4 boxes. There are 3 counters in each box.  
How many counters altogether?

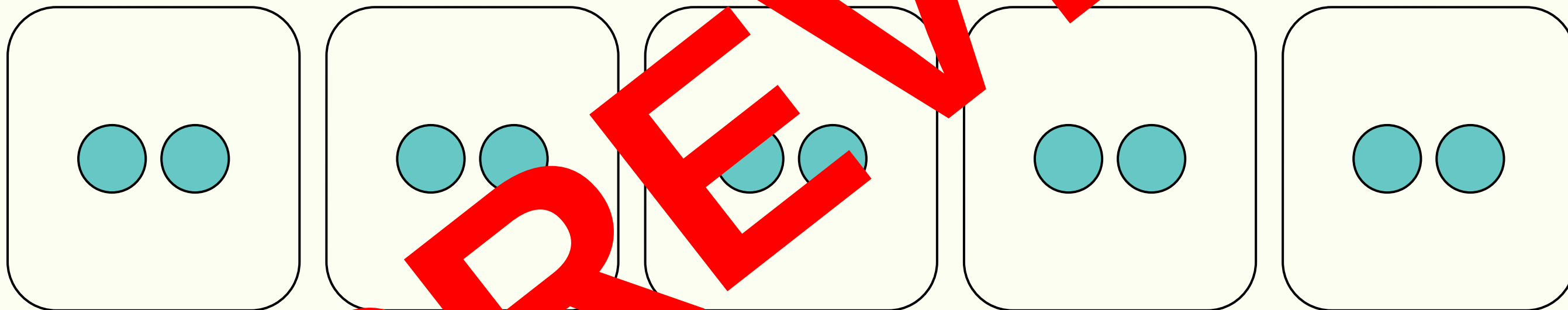


$3 + 3 + 3 + 3 = 12$ . There are 12 counters altogether.



# Your turn: find the total

5 trays. There are 2 counters in each tray.  
How many counters altogether?

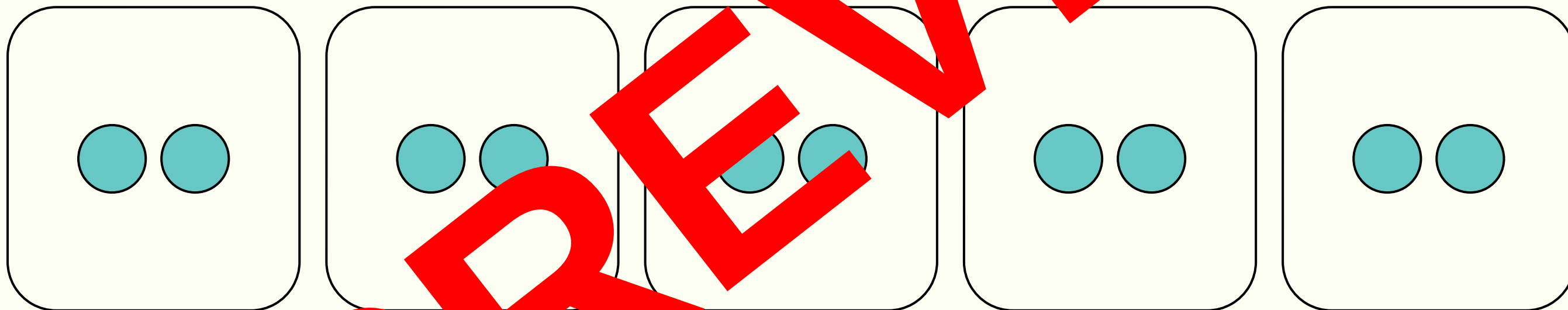


Total counters: \_\_\_\_\_ Show how you counted.



# Check the total

5 trays with 2 counters in each  
Count 2, 6, 10.



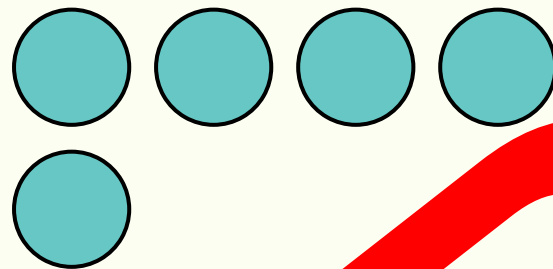
5 is the number of trays. 2 is in each tray. 10 is the total.



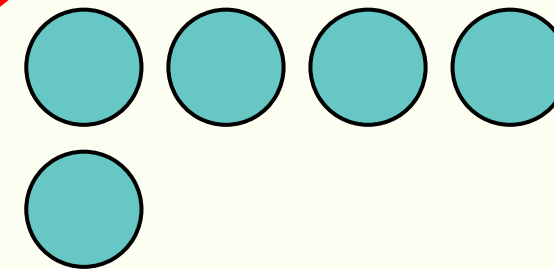
# Share between two teams

10 cards for 2 teams. Share equally.  
Give one card to each team in turn.

Team 1



Team 2



5 cards each. Both teams have the same amount.  $5 + 5 = 10$ .



# Share between four tables

12 counters for 4 tables. Share equally.  
Check every table has the same amount.

Table 1

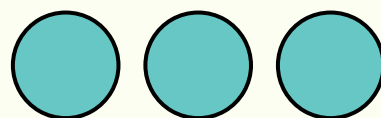


Table 2

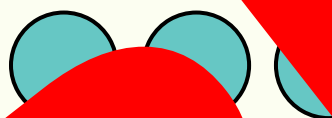


Table 3

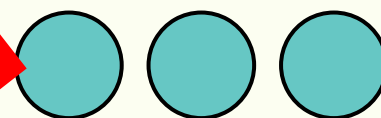
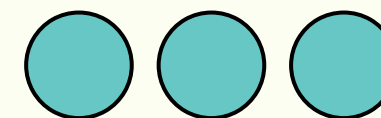


Table 4

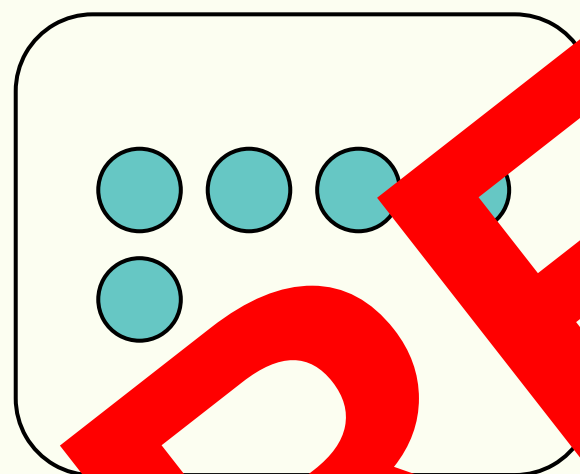
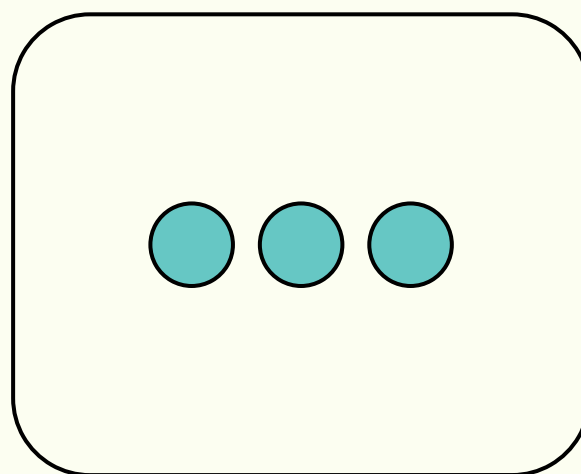


3 counters each. Four equal groups of three make 12.

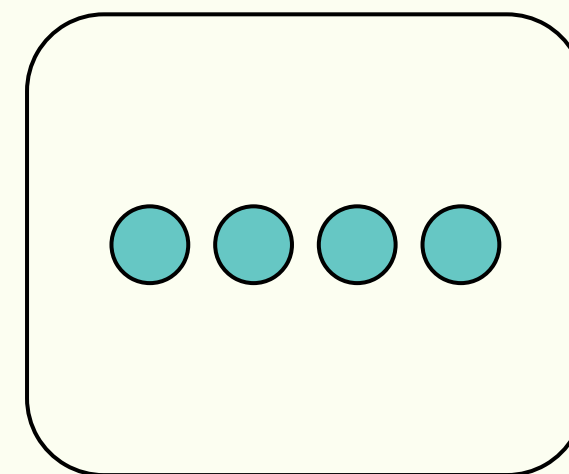
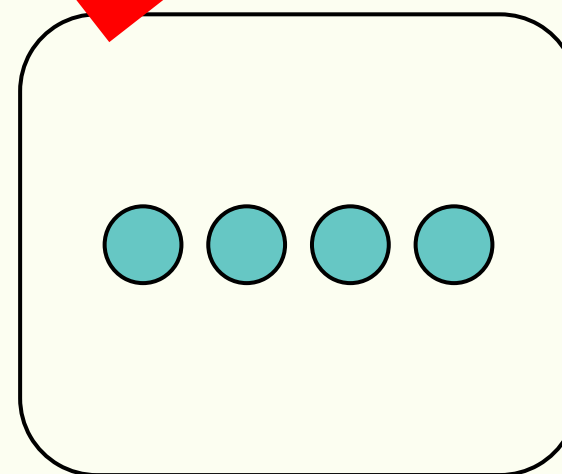


# Repair an unequal share

8 counters are shared out and 5  
Move one from the group of 5 to the group of 3.



becomes

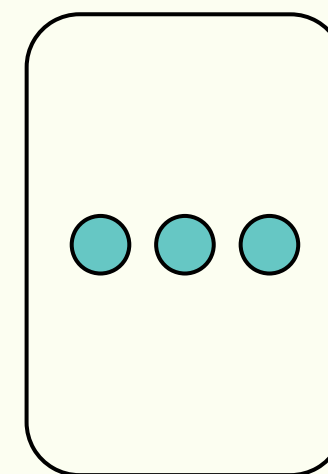
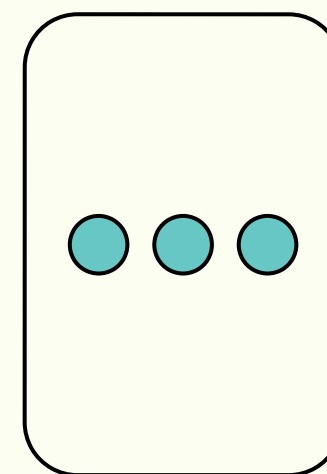
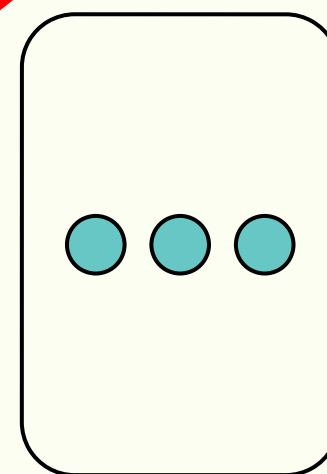
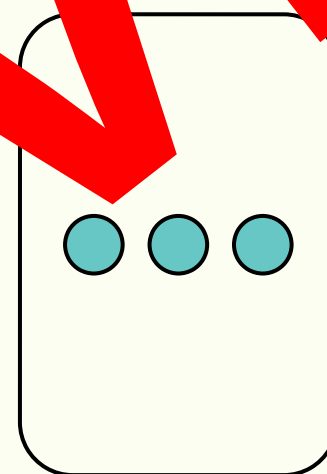
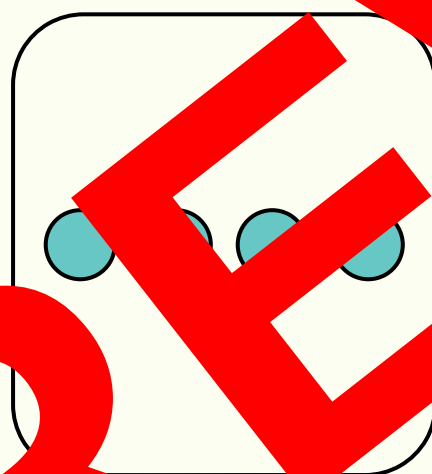
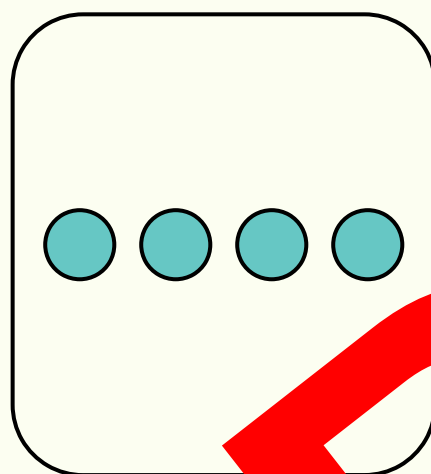
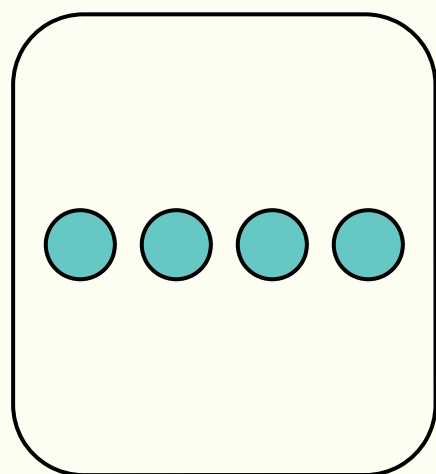


4 each. We kept all 8 counters and made the amounts equal.



# Same number, different meaning

12 shared among 3 people, 4 each  
12 packed with 3 in each bag, 4 bags.



Find the number EACH

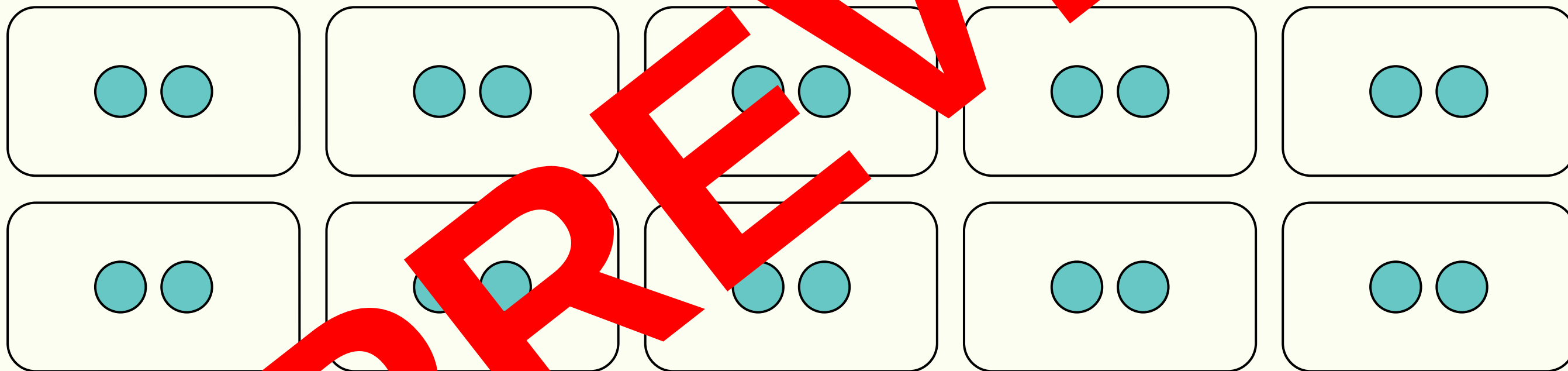
Find the number of BAGS

Both answers are 4. The question tells us what 4 means.



# Plan the sleeves

20 labels. Put 2 in each sleeve  
How many sleeves do we need?



10 sleeves. Count the ten pairs to check all 20 labels.



# Plan for four tables

16 items for 4 tables. Share equally.  
Choose objects, a drawing or a counting strategy.

Table 1

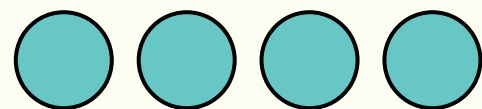


Table 2

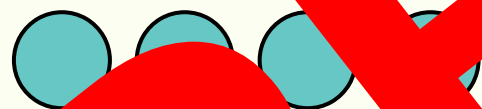


Table 3

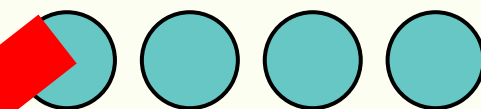
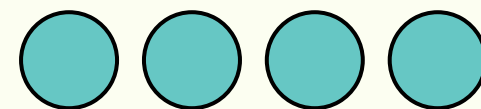


Table 4

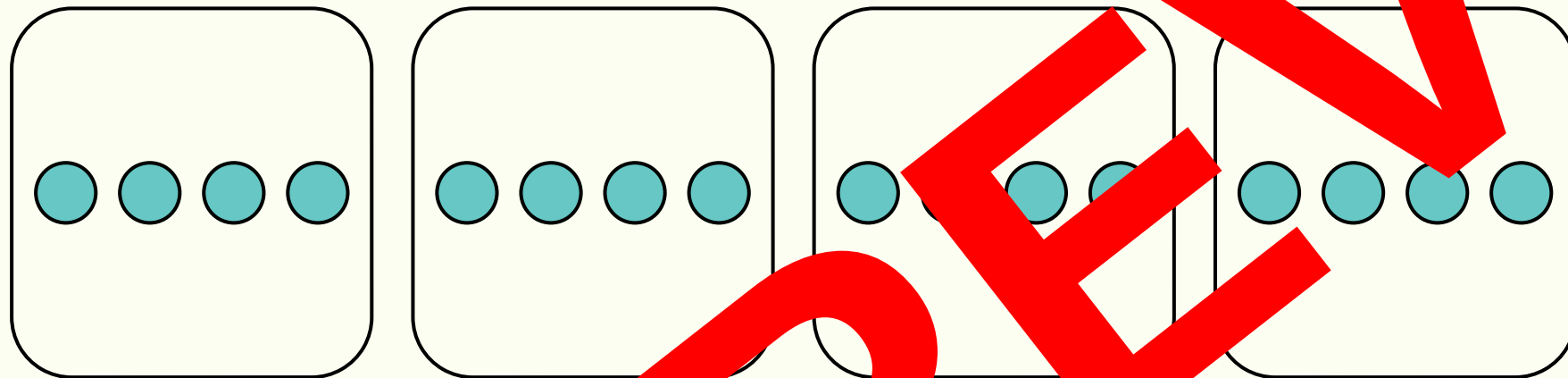


4 items on each table. Four equal groups of four make 16.



# Keep the given amounts

16 items shared equally between 4 tables.  
A different model must keep the same story.



$$4 + 4 + 4 + 4 = 16$$

4 equal shares

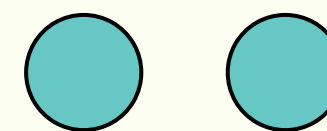
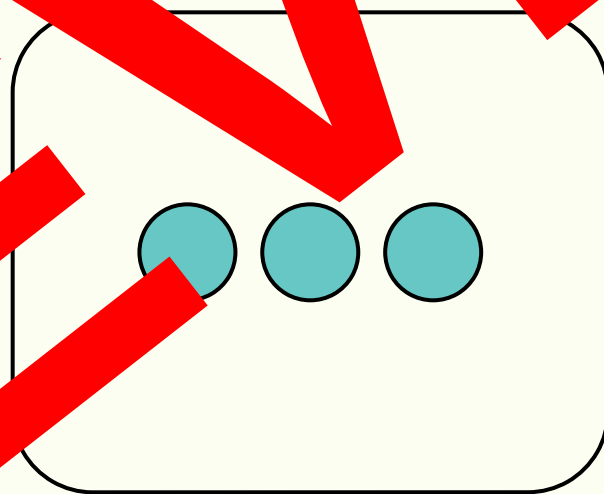
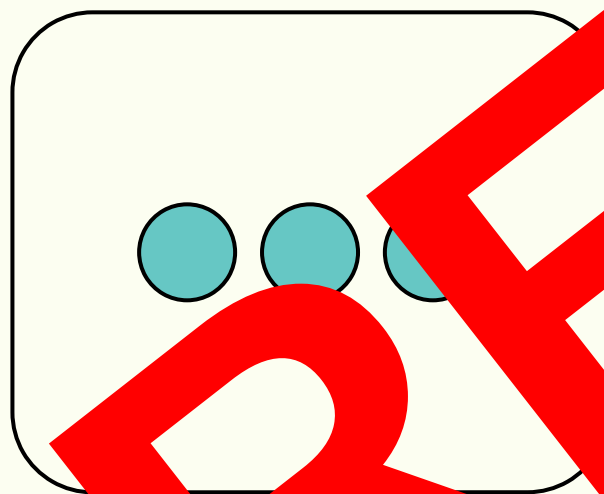
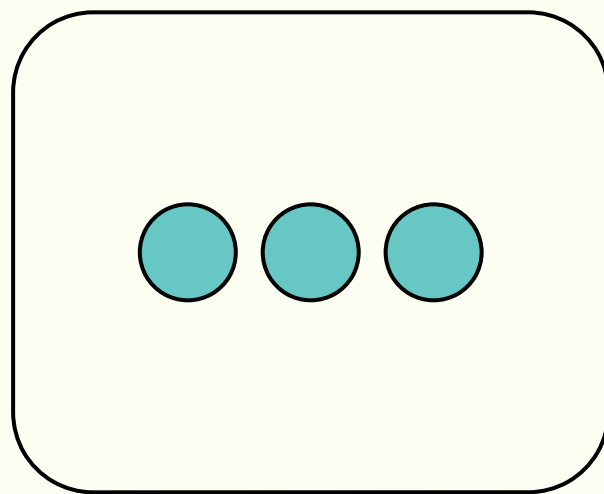
4 items each

Rearranging items keeps the total. Explain why both models fit.



# Optional: full packs and spares

11 items. Put 3 in each box  
How many FULL boxes and how many spare items?



Spare items

3 FULL boxes and 2 spares. This is an extra challenge.



# Show what you know

Try the two assessment sheets independently.  
You may move pieces, draw, point or explain.

Keep the given amounts.

Name your answer.

Choose a strategy.

Check equal groups and all items.

An adult may read or record. Your mathematical thinking is yours.



# Try a fresh practical problem

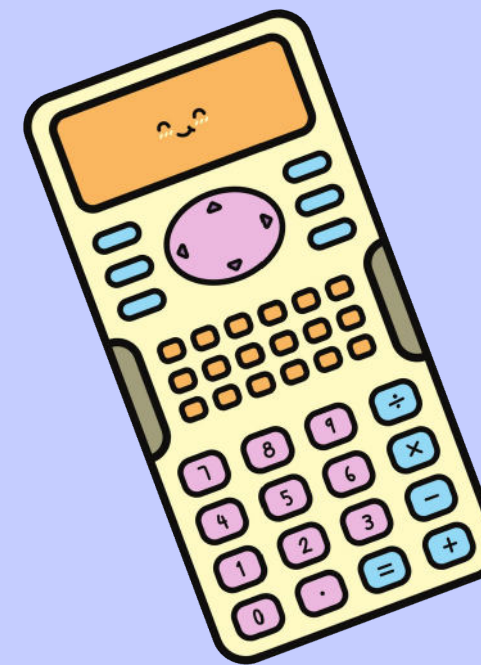
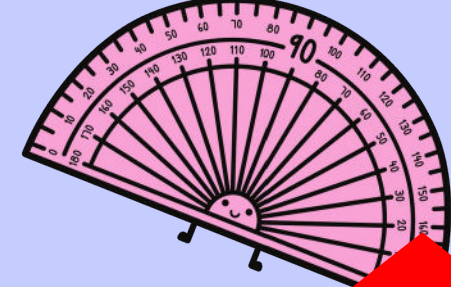
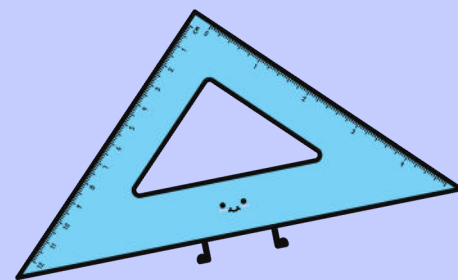
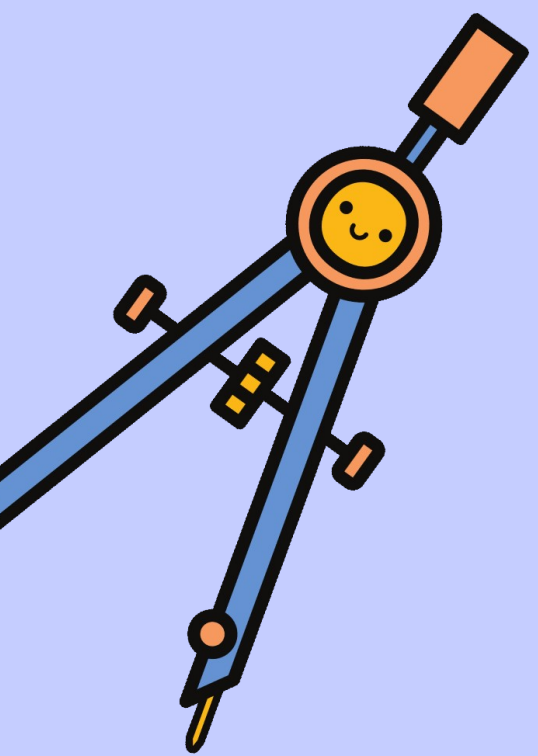
Choose one. Make a model, then explain and check.  
Keep your answer hidden until you have tried.

14 counters  
2 in each group  
How many groups?

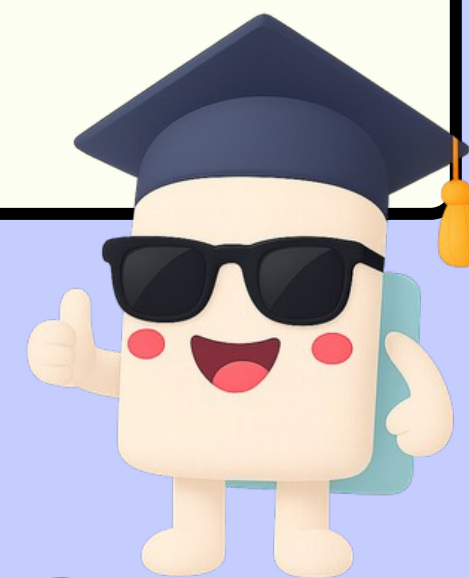
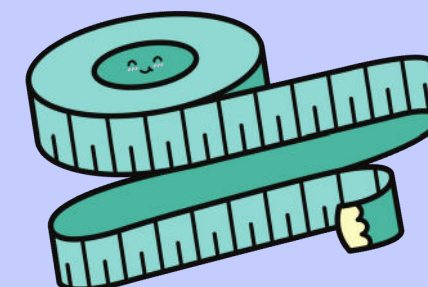
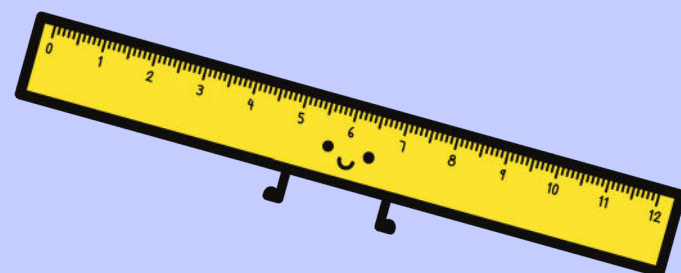
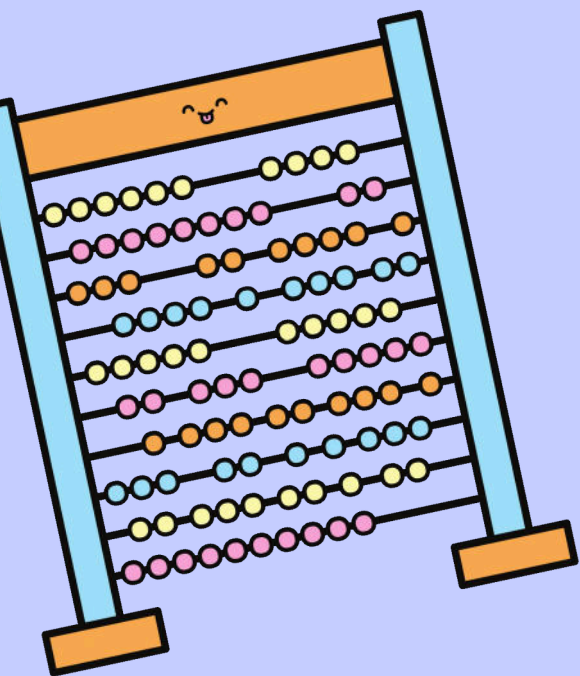
18 counters  
3 teams, shared equally  
How many each?

What is known? What is unknown? What does your answer mean?





**Say what your answer  
means.  
Explain how you checked.**

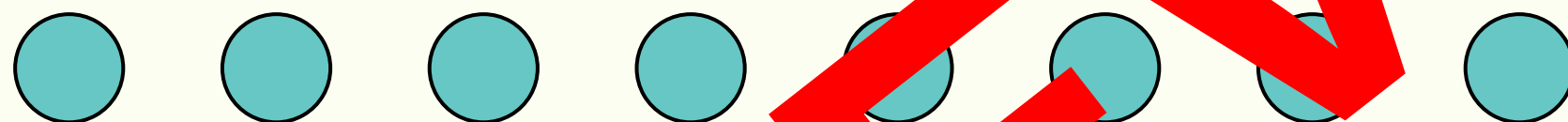


# Pack, Group and Check Year 1 Quiz



# Question 1

8 items. Put 2 in each pack.  
How many full packs?

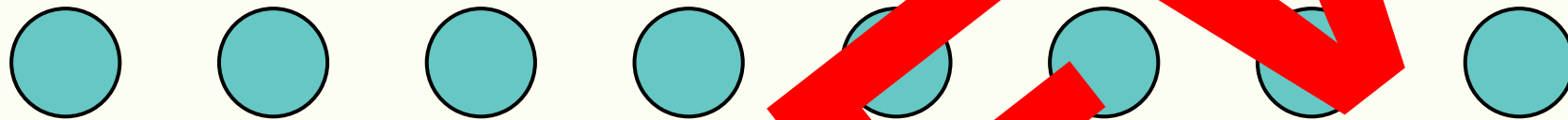


Show a model or strategy. Say what your answer means. Check.



# Answer 1

8 items. Put 2 in each pack.  
How many full packs?

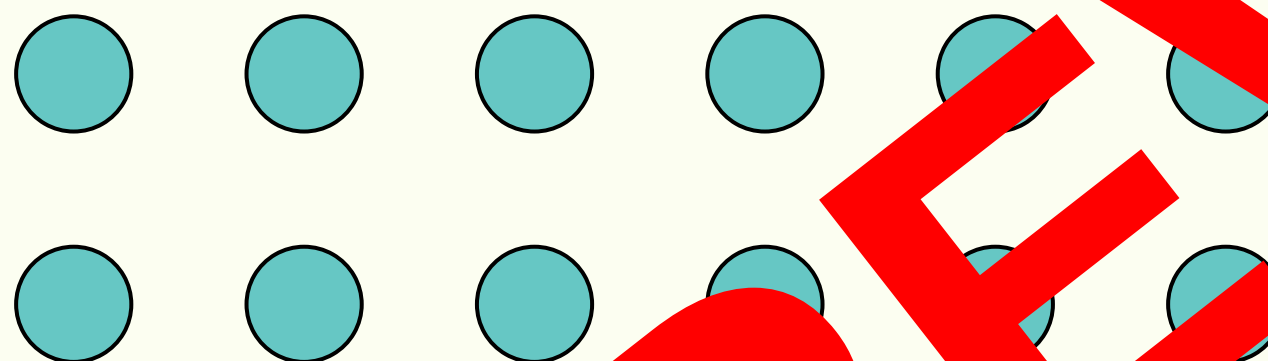


4 full packs. Four pairs use all 8 items.



## Question 2

12 items. Put 3 in each bag.  
How many bags?

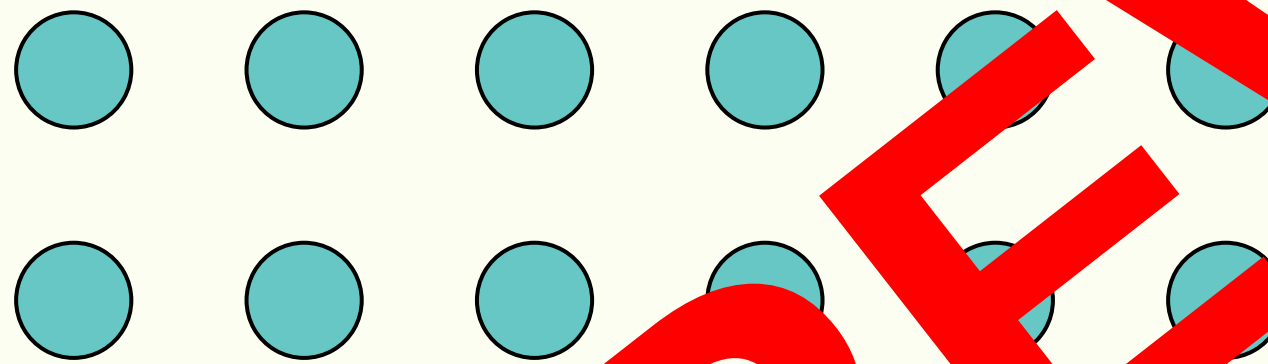


Show a model or strategy. Say what your answer means. Check.



# Answer 2

12 items. Put 3 in each bag.  
How many bags?

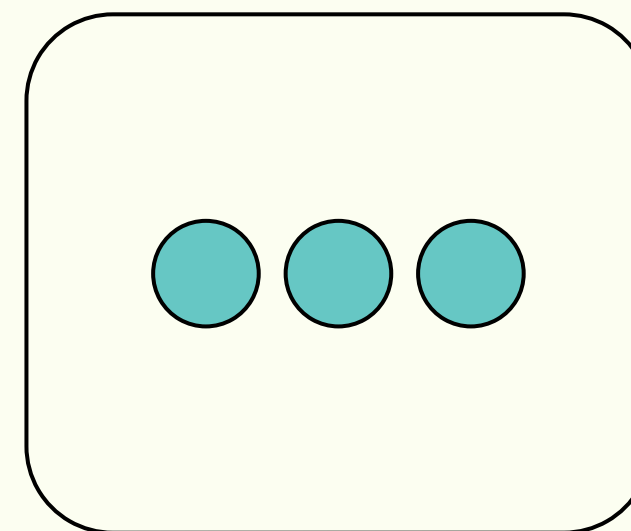
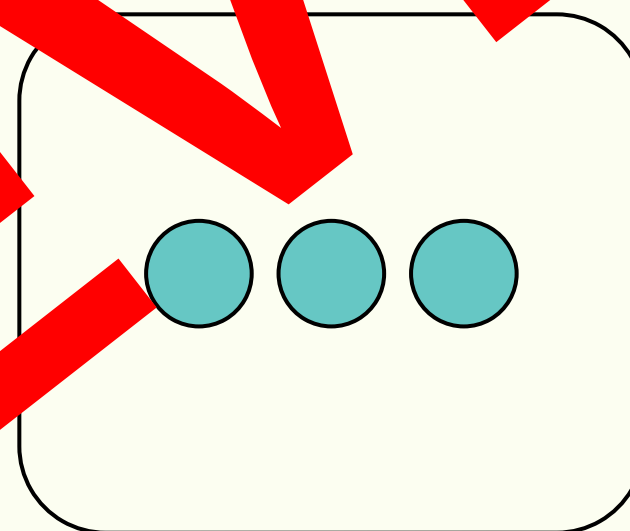
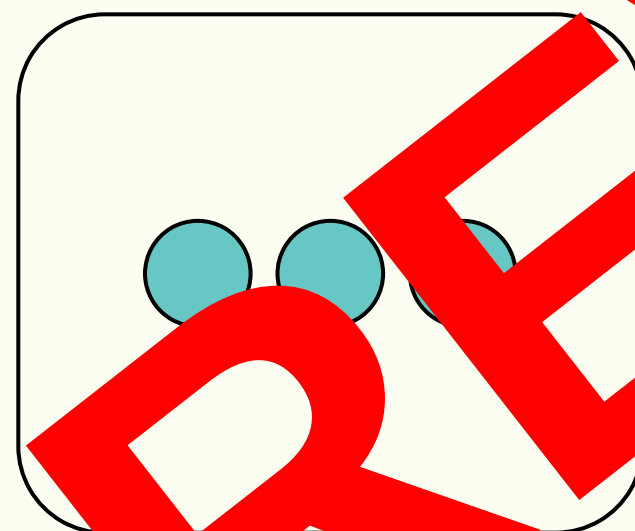
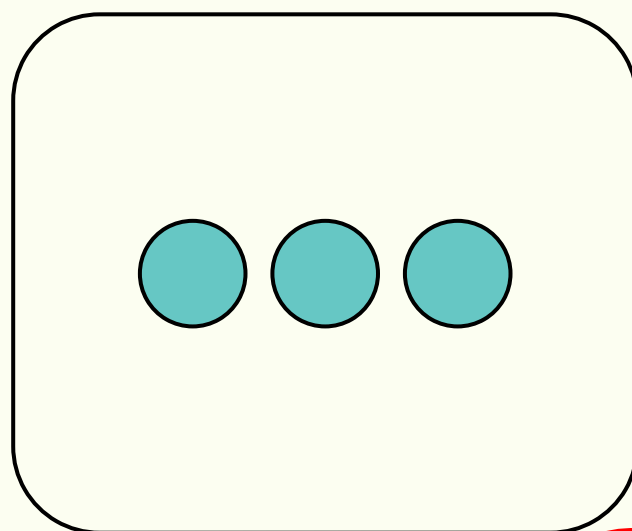


4 bags. Three in each. Count 3, 6, 9, 12.



# Question 3

4 boxes have 3 items in each.  
How many items altogether?

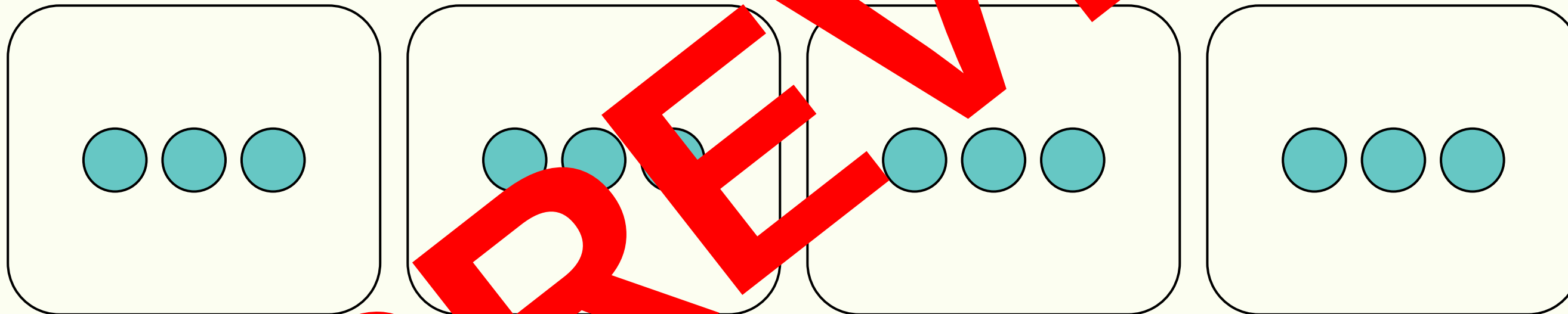


Show a model or strategy. Say what your answer means. Check.



# Answer 3

4 boxes have 3 items in each.  
How many items altogether?

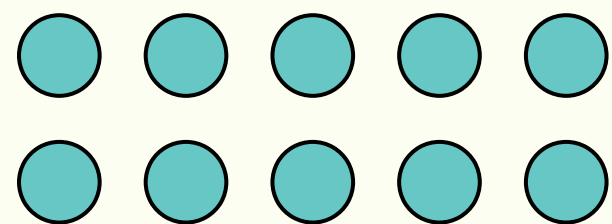


12 items altogether. Count four threes: 3, 6, 9, 12.



# Question 4

10 cards for 2 teams. Shared equally.  
How many cards for each team?



Team 1

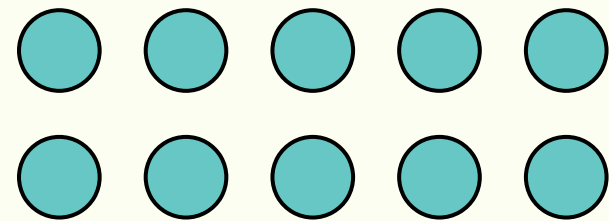
Team 2

Show a model or strategy. Say what your answer means. Check.



# Answer 4

10 cards for 2 teams. Shared equally.  
How many cards for each team?



Team 1

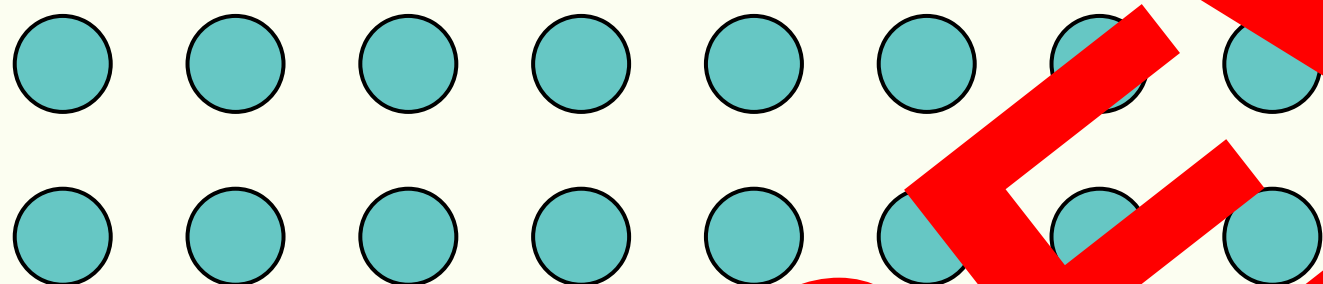
Team 2

5 cards each. Two equal fives use all 10 cards.



## Question 5

16 items, 4 in each box. Claim: fun boxes use all items.  
Is the claim correct? Explain.

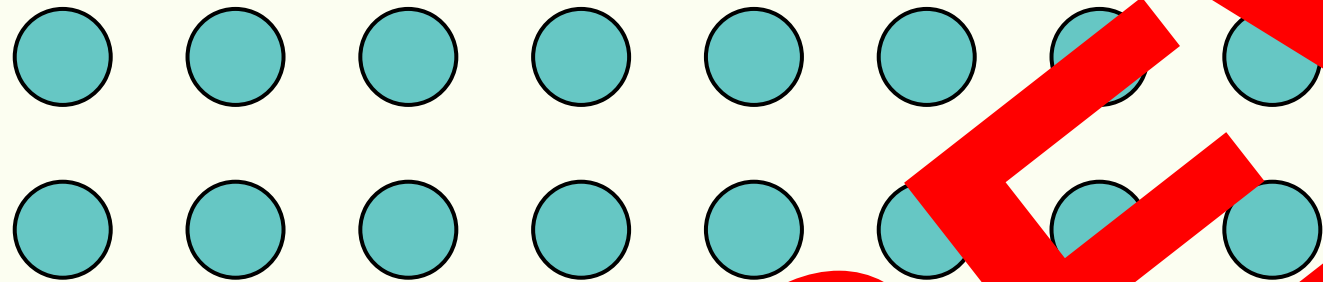


Show a model or strategy. Say what your answer means. Check.



# Answer 5

16 items, 4 in each box. Claim: fun boxes use all items.  
Is the claim correct? Explain.



False: 4 boxes. Three boxes use 12, leaving 4 still to place.



## Question 6

12 counters for 4 tables. Share equally.  
How many counters on each table?

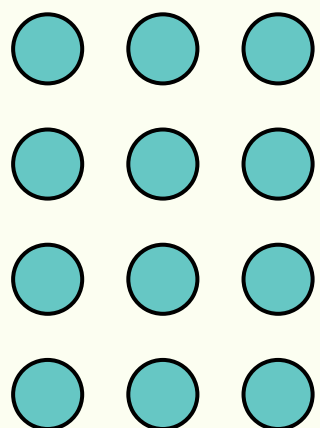


Table 1

Table 2

Table 3

Table 4

Show a model or strategy. Say what your answer means. Check.



# Answer 6

12 counters for 4 tables. Share equally.  
How many counters on each table?

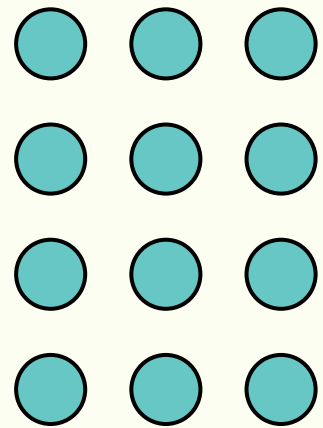


Table 1

Table 2

Table 3

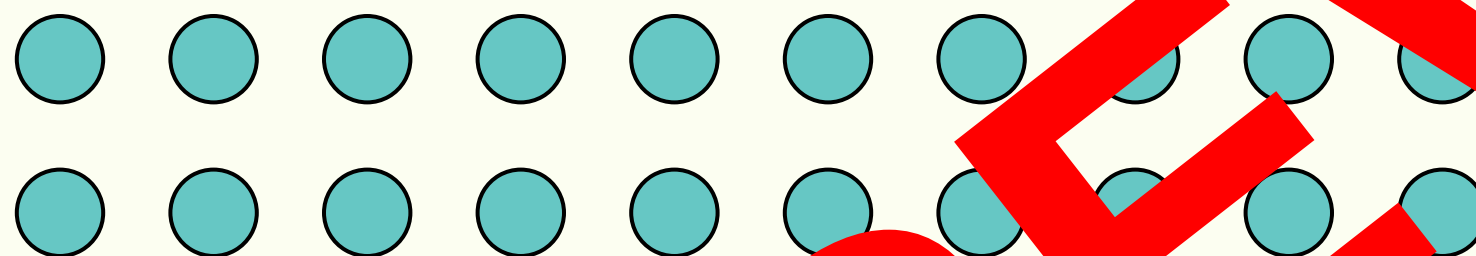
Table 4

3 counters each. Four equal threes use all 12 counters.



# Question 7

20 labels. Put 2 in each sleeve.  
How many sleeves?

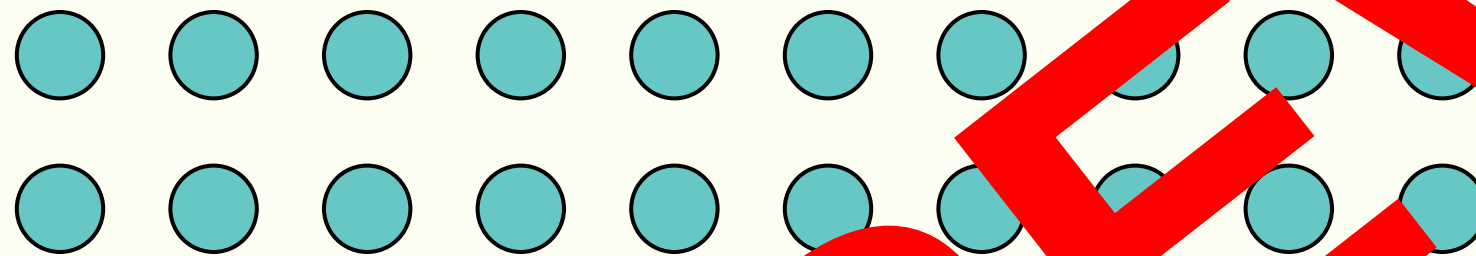


Show a model or strategy. Say what your answer means. Check.



# Answer 7

20 labels. Put 2 in each sleeve.  
How many sleeves?

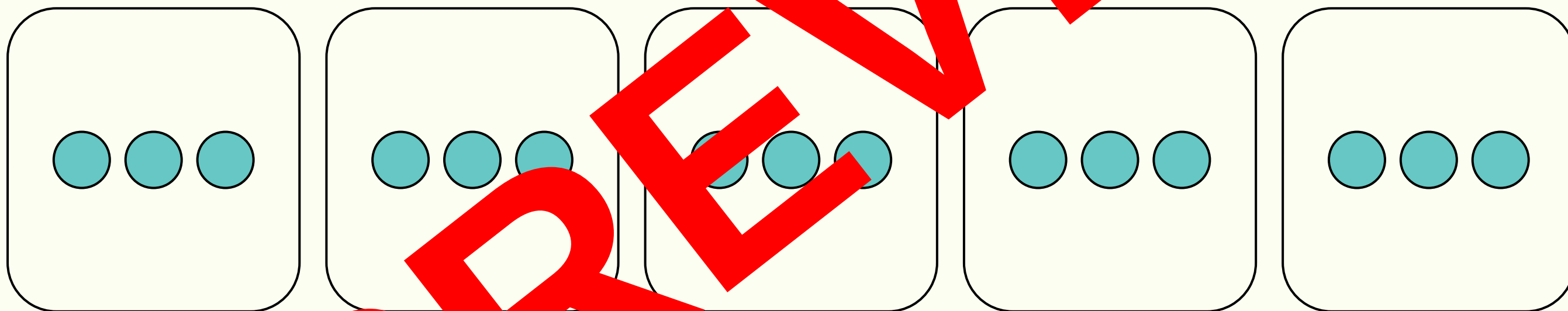


10 sleeves. Ten pairs use all 20 labels.



## Question 8

5 trays have 3 items in each.  
How many items altogether?

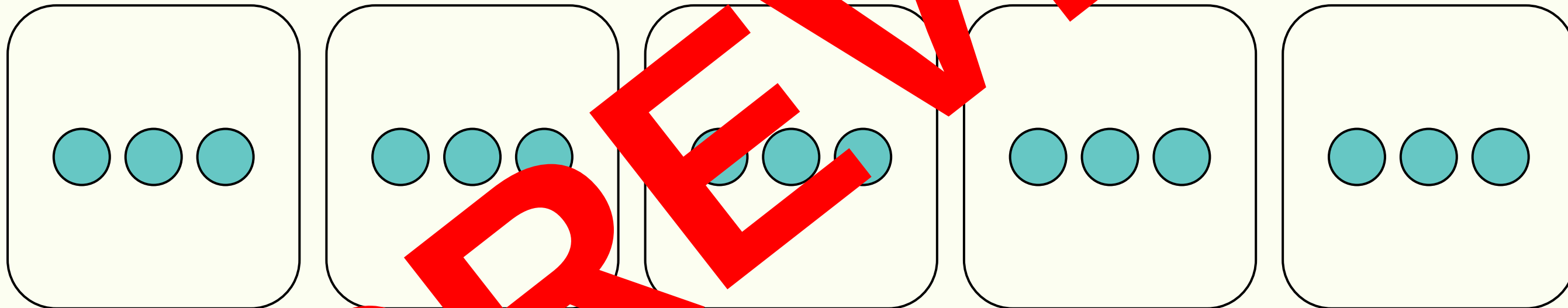


Show a model or strategy. Say what your answer means. Check.



# Answer 8

5 trays have 3 items in each.  
How many items altogether?



15 altogether. Count 3, 6, 9, 12, 15.



# Question 9

12 shared among 3 people. 12 packed with 3 in each pack.  
What do the two answers mean?

SHARING

Find the amount each.

PACKING

Find the number of packs.

Show a model or strategy. Say what your answer means. Check.



# Answer 9

12 shared among 3 people. 12 packed with 3 in each pack.  
What do the two answers mean?

SHARING

Find the amount each.

PACKING

Find the number of packs.

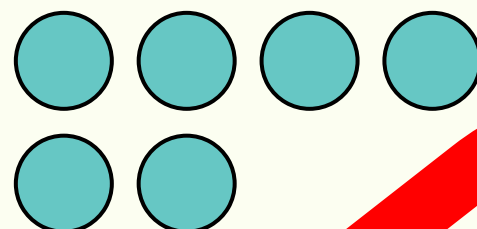
4 each for sharing; 4 packs for packing. Same number, different meaning.



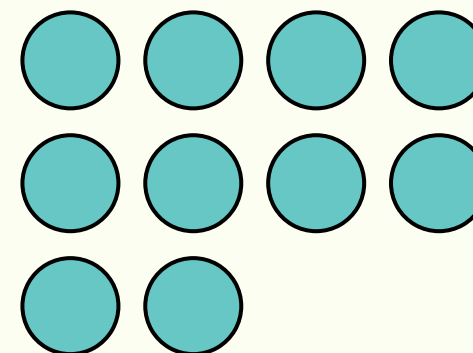
# Question 10

16 cards: Station A has 6 and Station B has 10.  
Make the shares equal. Explain and check.

Station A



Station B



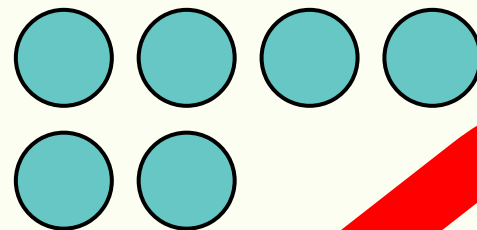
Show a model or strategy. Say what your answer means. Check.



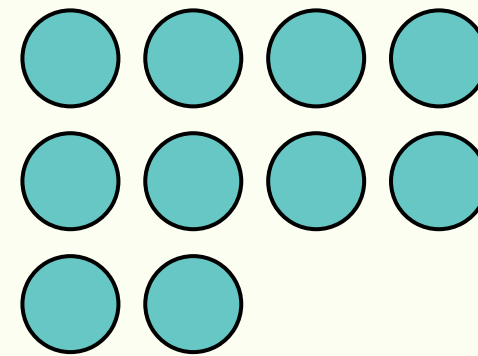
# Answer 10

16 cards: Station A has 6 and Station B has 10.  
Make the shares equal. Explain and check.

Station A

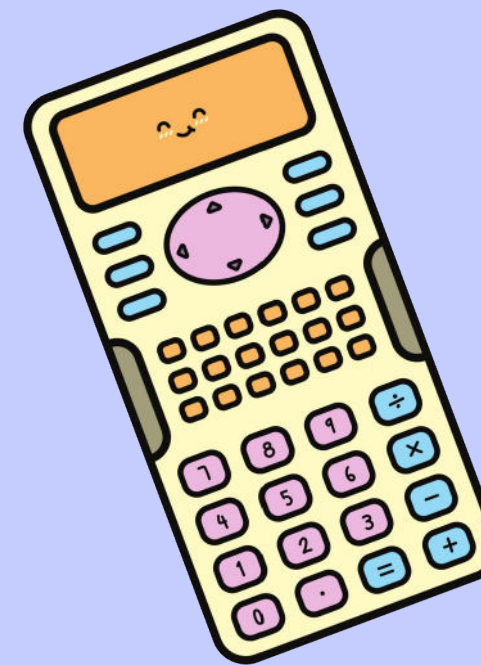
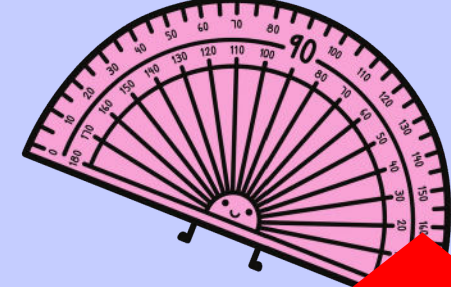
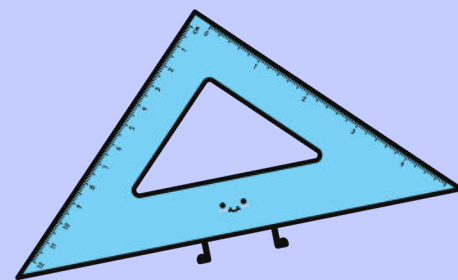
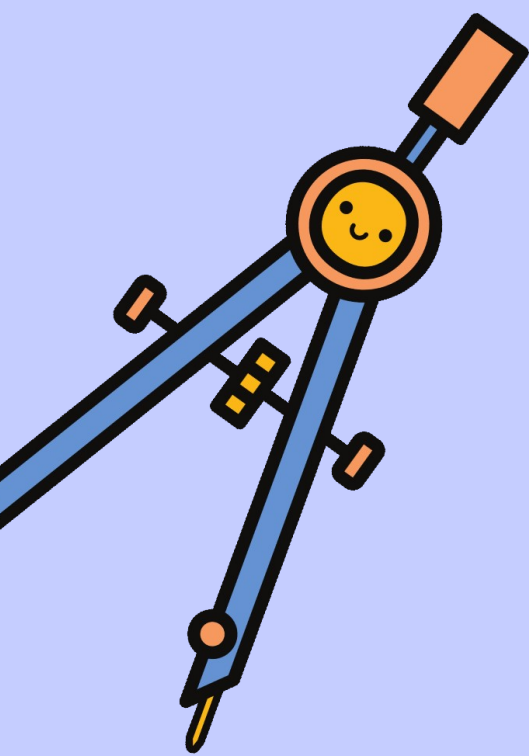


Station B



Moved from B to A: 8 each. Equal amounts;  $8 + 8 = 16$ .





**PREVIEW**

**Explain your model.  
Name and check your  
answer.**

