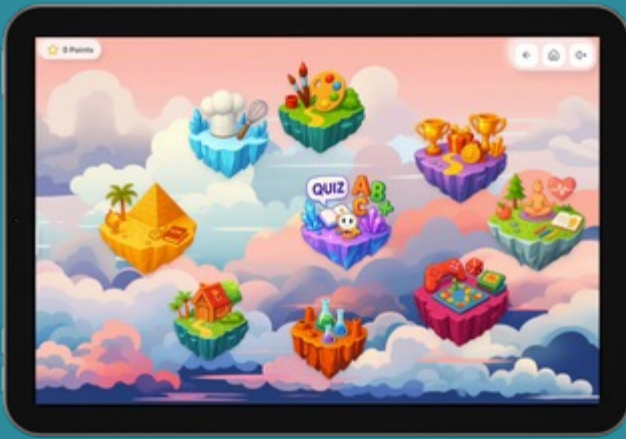


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Angles yr 4

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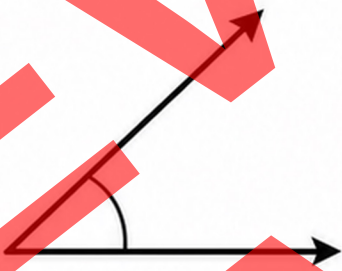


ANGLE TYPES TOOLKIT

Use right angles as benchmarks to compare and name angles.

ACUTE:

less than 90 degrees



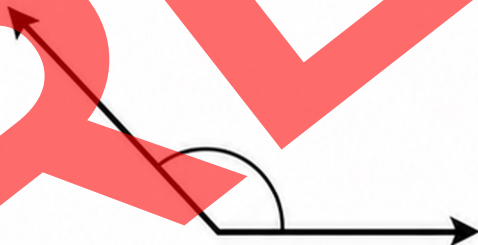
RIGHT:

exactly 90 degrees



OBTUSE:

more than 90 degrees
and less than 180 degrees



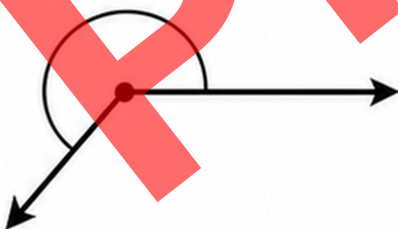
STRAIGHT:

exactly 180 degrees



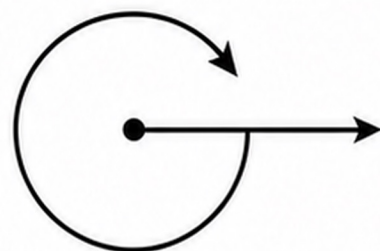
REFLEX:

more than 180 degrees
and less than 360 degrees



REVOLUTION:

exactly 360 degrees



Name: _____

ANGLE SORT MATCH CARDS

Cut out the cards. Sort each angle under the best heading.

Acute

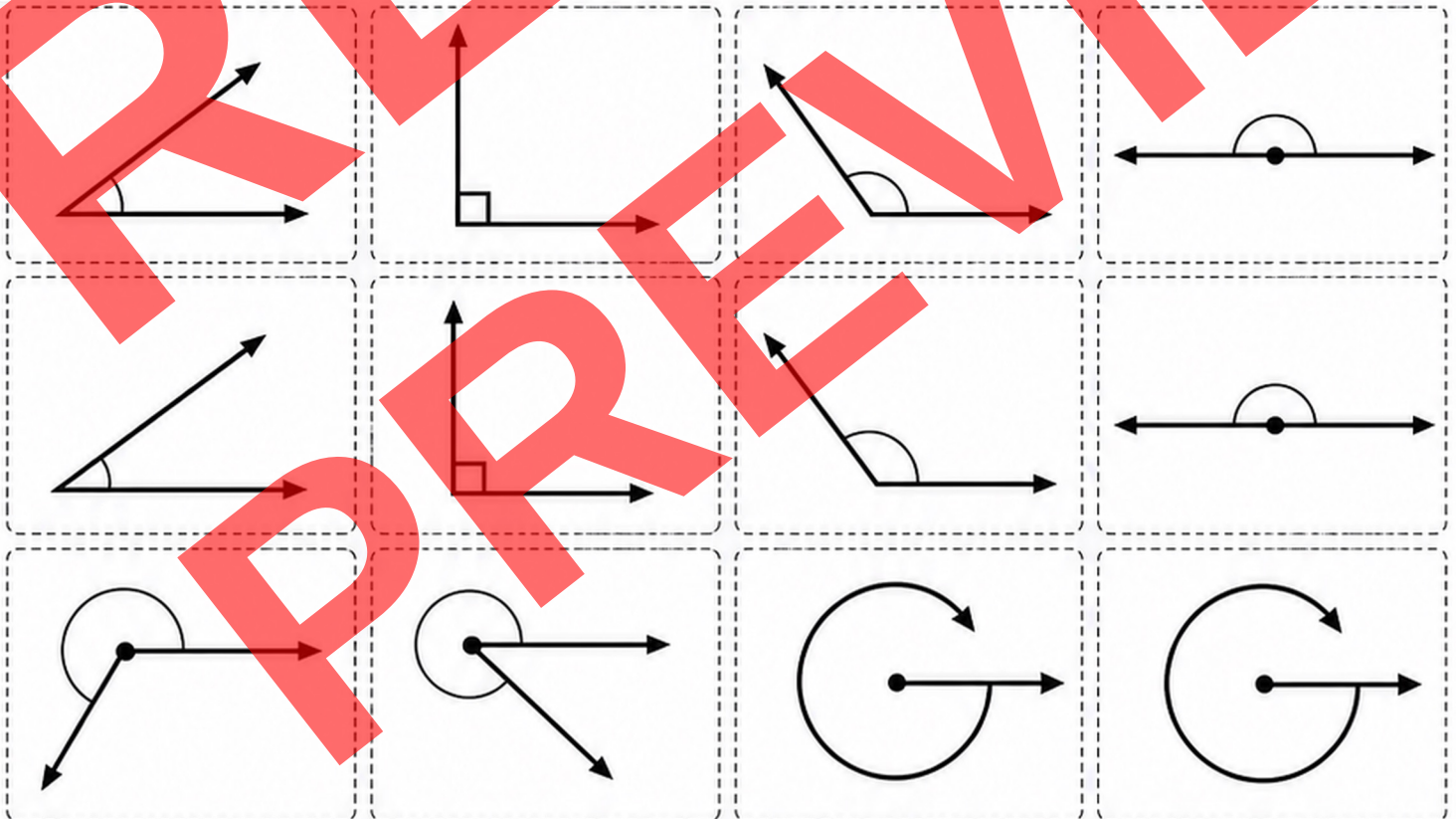
Right

Obtuse

Straight

Reflex

Revolution



Compare each angle with 90 degrees, 180 degrees and 360 degrees.

ANGLE ADVENTURE BOARD



Rules

Roll.

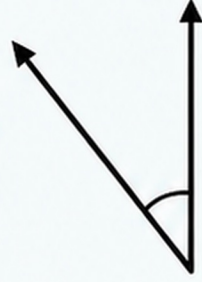
Move.

Answer a matching card.

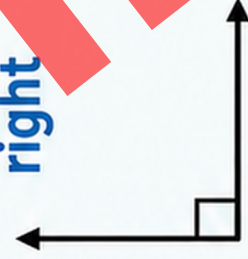
Correct: stay.

Try again: move back one.

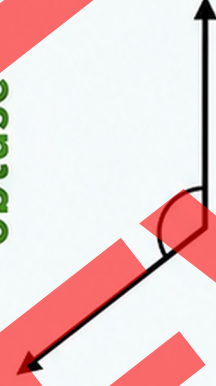
acute



right



obtuse



reflex

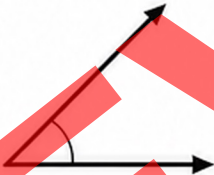


ANGLE ADVENTURE TASK CARDS

Pick a card that matches your board space. Solve aloud or show your working.

1.

Name this angle type.



2.

Draw an acute angle.

3.

Draw a right angle.

4.

Draw an obtuse angle.

5.

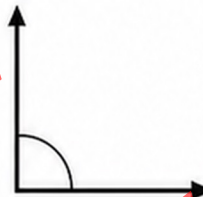
Which is larger:
80 degrees
or 120 degrees?

6.

Is 180
degrees straight
or reflex?

7.

Show a
quarter turn.



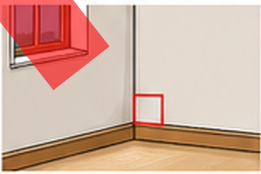
8.

Show a
half turn.



9.

Find a right
angle in
the room.



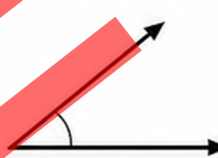
10.

Compare this
angle with
90 degrees.



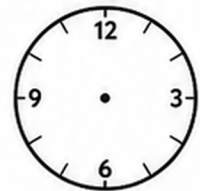
11.

Estimate:
about 45 degrees
or 135 degrees?



12.

Make a clock that
shows a right
angle.



13.

Explain why
this is obtuse.

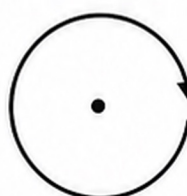


14.

What angle is
more than
180 degrees?

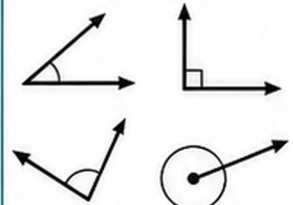
15.

Draw a full
revolution.



16.

Sort: acute,
right, obtuse
or reflex?

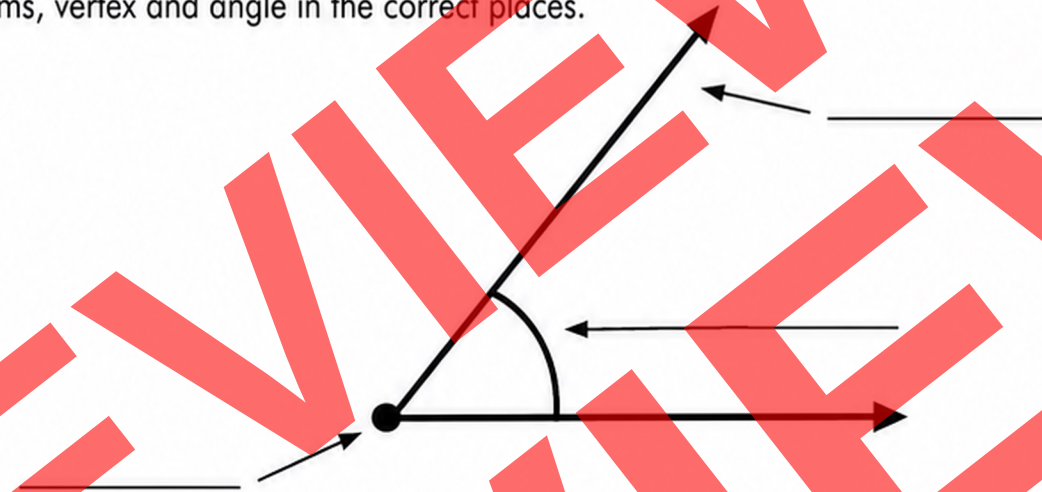


Angle Parts and Benchmarks

Name: _____

1. Label the angle

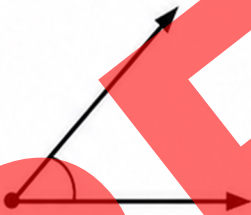
Write arms, vertex and angle in the correct places.



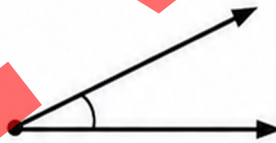
2. Use the benchmark

Compare each angle with a right angle. Write smaller than, equal to or greater than.

1.



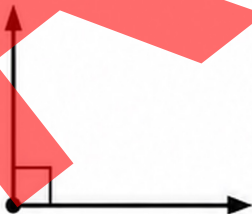
2.



3.



4.



5.



6.



3. Finish the sentence

An acute angle is _____.

A right angle is _____.

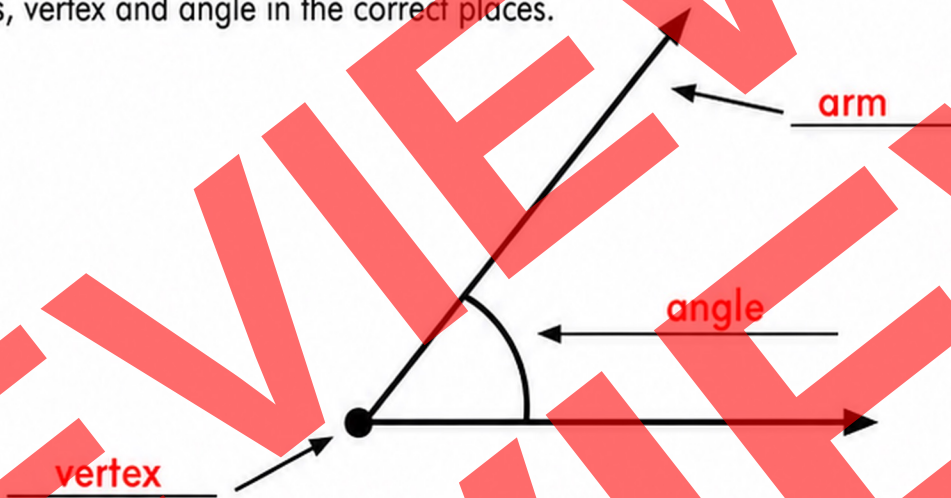
An obtuse angle is _____.

Angle Parts and Benchmarks

Name: **ANSWERS**

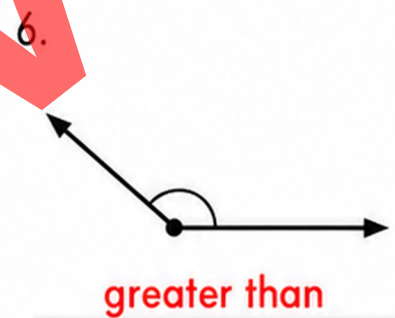
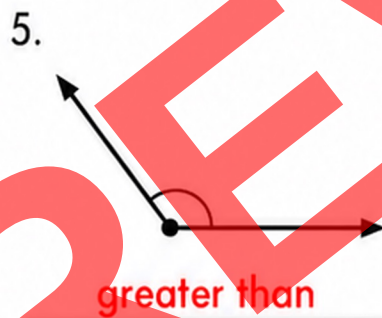
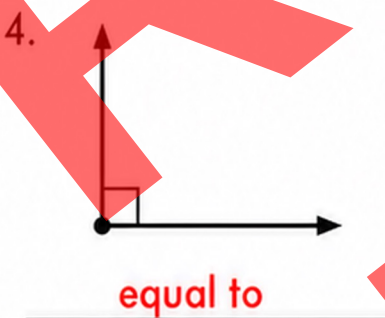
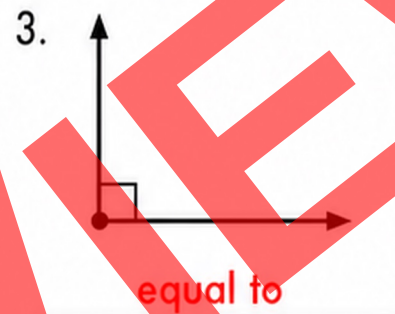
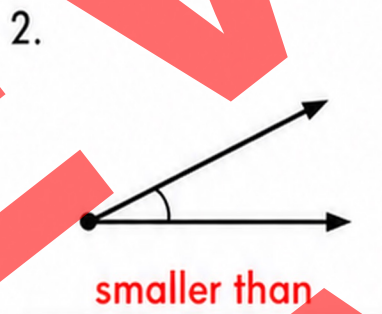
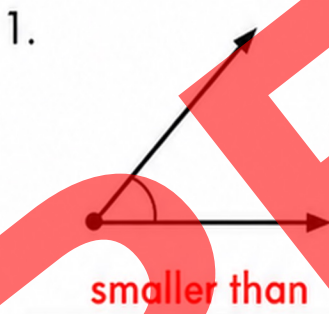
1. Label the angle

Write arms, vertex and angle in the correct places.



2. Use the benchmark

Compare each angle with a right angle. Write smaller than, equal to or greater than.



3. Finish the sentence

An acute angle is less than 90 degrees.

A right angle is exactly 90 degrees.

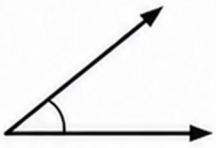
An obtuse angle is more than 90 degrees and less than 180 degrees.

Classify the Angles

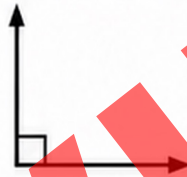
Name: _____

Write acute, right, obtuse, straight or reflex under each angle.

acute < 90 degrees



right = 90 degrees



obtuse > 90 degrees



straight = 180 degrees



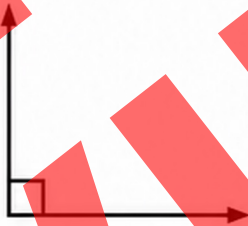
reflex > 180 degrees



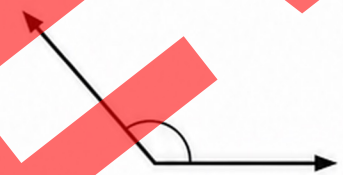
1.



2.



3.



4.



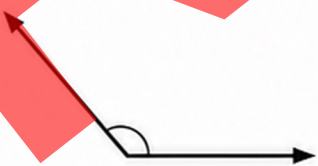
5.



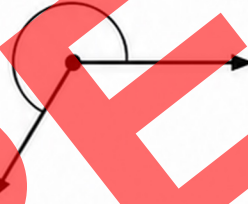
6.



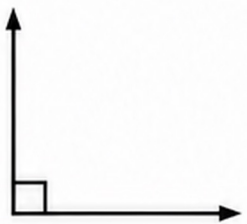
7.



8.



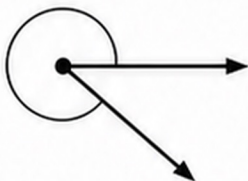
9.



10.



11.



12.

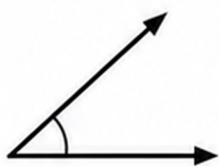


Classify the Angles

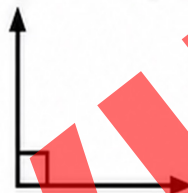
Name: ANSWERS

Write acute, right, obtuse, straight or reflex under each angle.

acute < 90 degrees



right = 90 degrees



obtuse > 90 degrees



straight = 180 degrees



reflex > 180 degrees

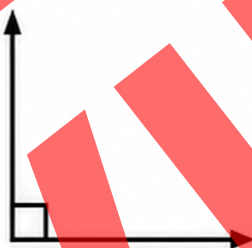


1.



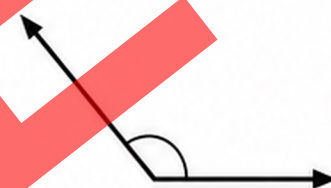
acute

2.



right

3.



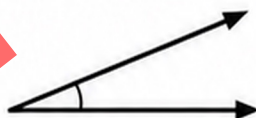
obtuse

4.



obtuse

5.



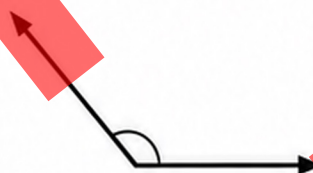
acute

6.



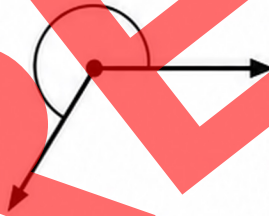
straight

7.



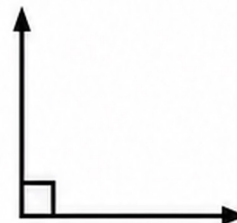
obtuse

8.



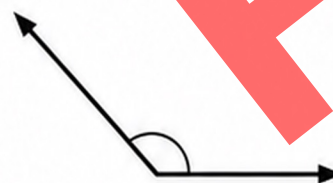
reflex

9.



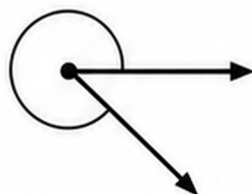
right

10.



obtuse

11.



reflex

12.



straight

Compare the Angles

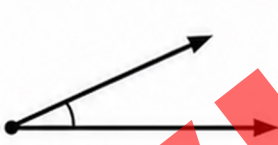
Name: _____

Circle the larger angle in each pair. Then write acute, right, obtuse, straight or reflex.

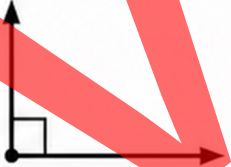
Angle A

Angle B

1.



2.



3.



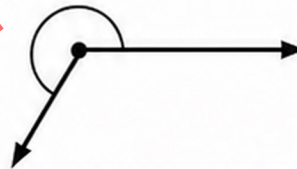
4.



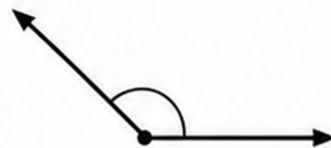
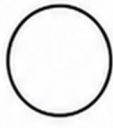
5.



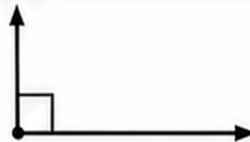
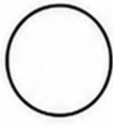
6.



7.



8.



Compare the Angles

Name: ANSWERS

Circle the larger angle in each pair. Then write *acute*, *right*, *obtuse*, *straight* or *reflex*.

Angle A

Angle B

1.



obtuse

2.



right

3.



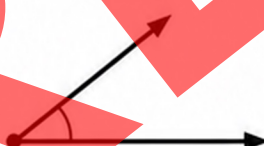
obtuse

4.



straight

5.



acute

6.



reflex

7.



reflex

8.



right

Draw and Estimate Angles

Name: _____

1. Draw the angle

Draw a second ray to make each angle.

a) acute



b) right



c) obtuse



d) straight



e) reflex



f) about 45 degrees



2. Estimate in degrees

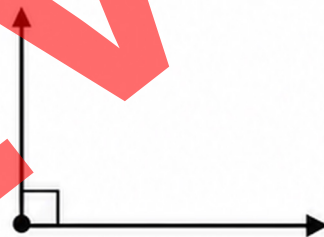
Write a sensible estimate.

1.



Estimate: _____ degrees

2.



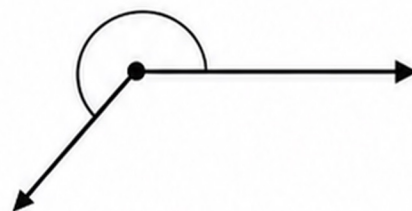
Estimate: _____ degrees

3.



Estimate: _____ degrees

4.



Estimate: _____ degrees

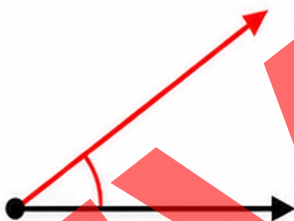
Draw and Estimate Angles

Name: ANSWERS

1. Draw the angle

Draw a second ray to make each angle.

a) acute



b) right



c) obtuse



d) straight



e) reflex



f) about 45 degrees



2. Estimate in degrees

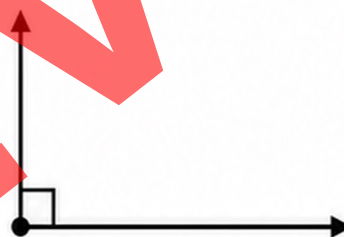
Write a sensible estimate.

1.



Estimate: 30 degrees

2.



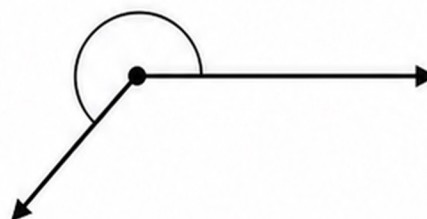
Estimate: 90 degrees

3.



Estimate: 120 degrees

4.



Estimate: 225 degrees

Clock Face Angles

Name: _____

Look at the smaller angle made by the clock hands. Write acute, right or obtuse.

1.



Angle type: _____

2.



Angle type: _____

3.



Angle type: _____

4.



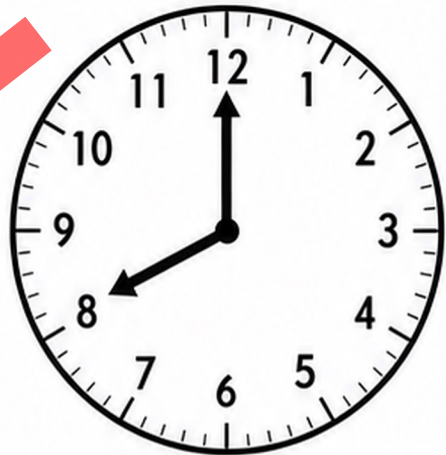
Angle type: _____

5.



Angle type: _____

6.



Angle type: _____

Clock Face Angles

Name: ANSWERS

Look at the smaller angle made by the clock hands. Write acute, right or obtuse.

1.



Angle type: right

2.



Angle type: acute

3.



Angle type: obtuse

4.



Angle type: obtuse

5.



Angle type: acute

6.



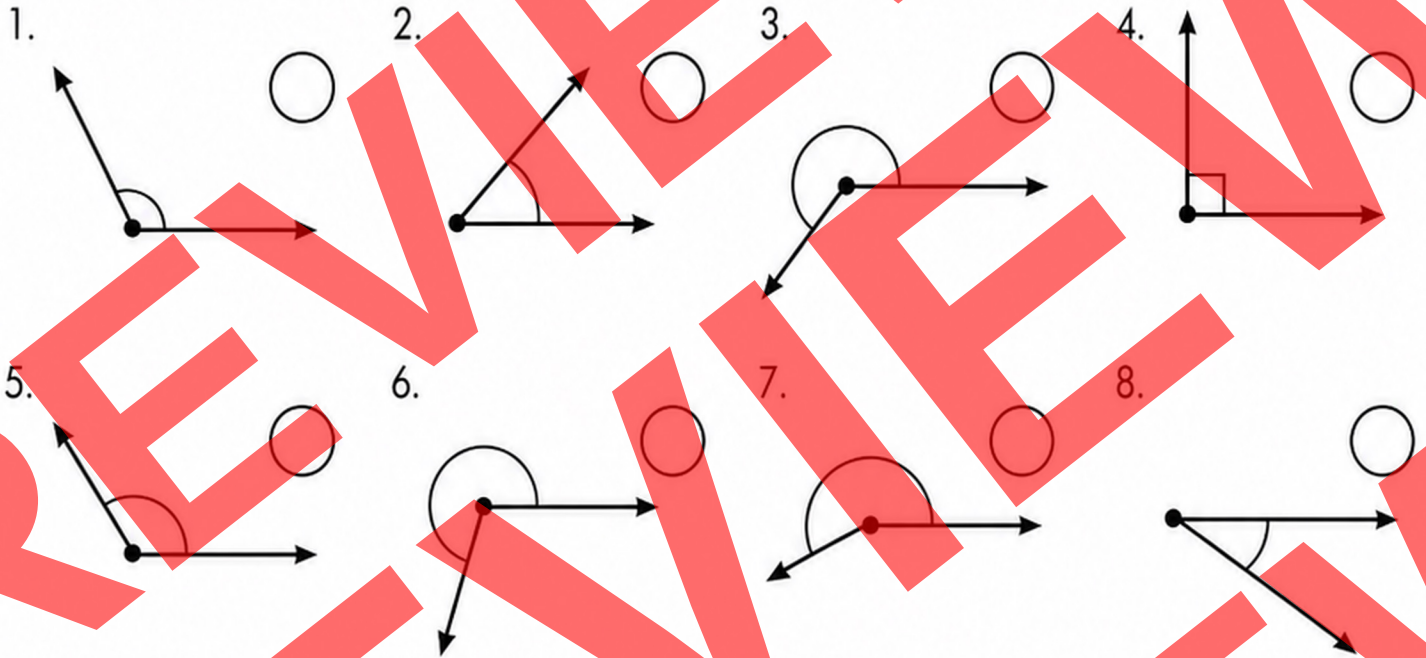
Angle type: obtuse

Reflex and Full Turns

Name: _____

1. Circle the reflex angles

A reflex angle is more than 180 degrees and less than 360 degrees.

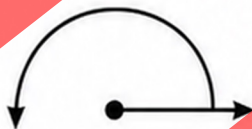


2. Name the turn

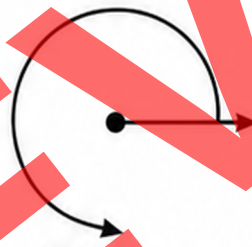
Write quarter turn, half turn, three-quarter turn or full turn.



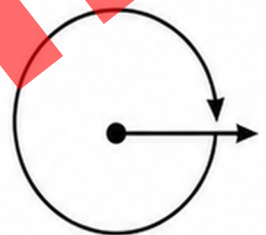
90 degrees



180 degrees



270 degrees



360 degrees

3. Explain

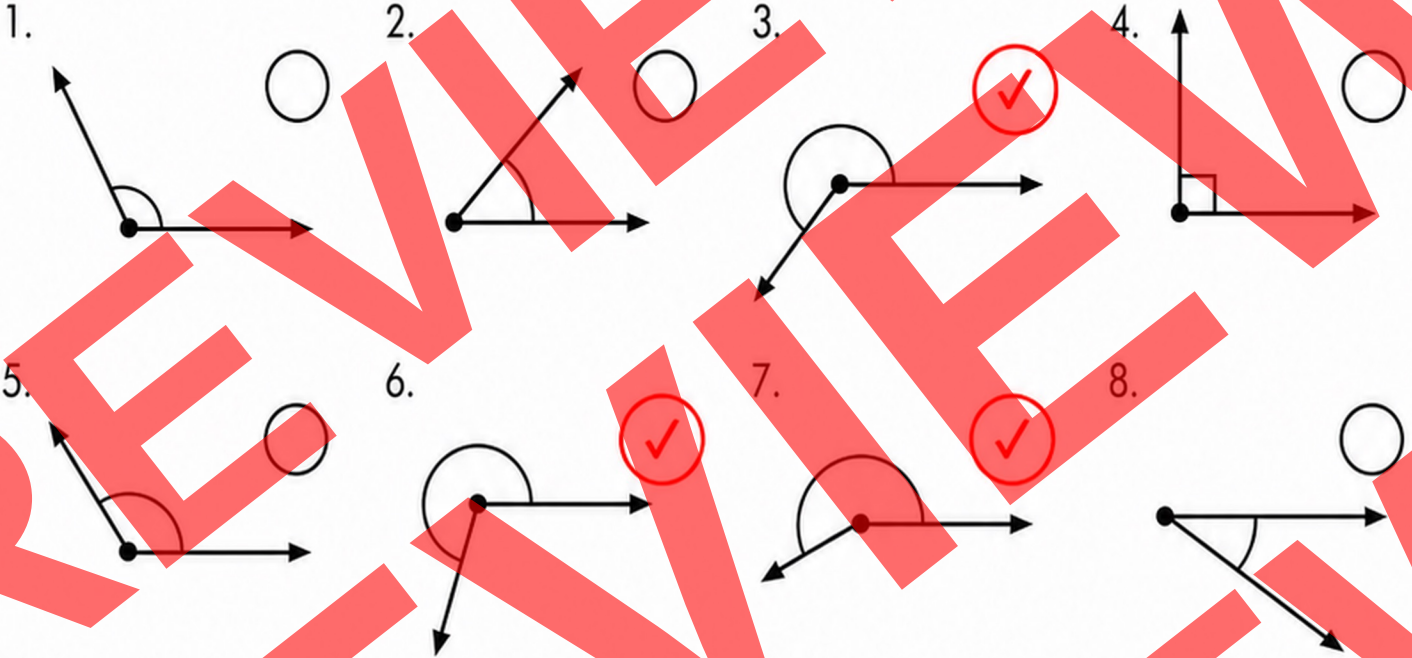
How can you tell that an angle is reflex?

Reflex and Full Turns

Name: ANSWERS

1. Circle the reflex angles

A reflex angle is more than 180 degrees and less than 360 degrees.



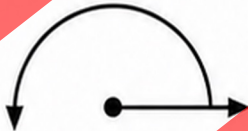
2. Name the turn

Write quarter turn, half turn, three-quarter turn or full turn.



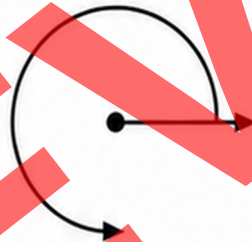
90 degrees

quarter turn



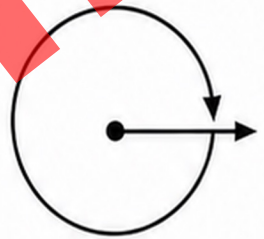
180 degrees

half turn



270 degrees

three-quarter turn



360 degrees

full turn

3. Explain

How can you tell that an angle is reflex?

It is more than 180 degrees and less than 360 degrees. It shows the larger
turn around the vertex.

Angle Skills Check-Up

Name: _____

Page 1

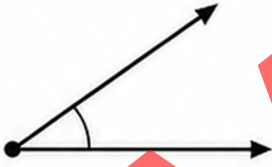
Show what you know about comparing, naming and estimating angles.

1. Name each angle type

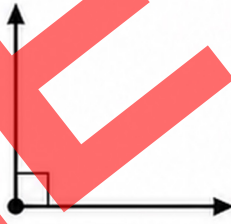
Write acute, right, obtuse, straight or reflex.

/6

1.



2.



3.



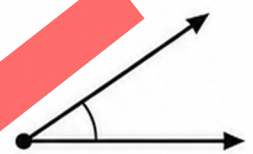
4.



5.



6.

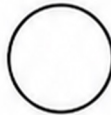


2. Compare

Circle the larger angle in each pair.

/4

1.



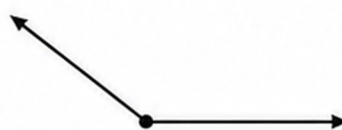
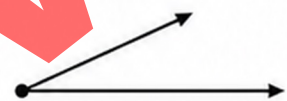
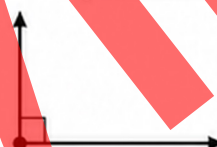
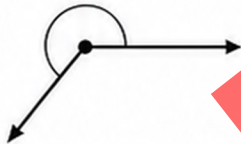
2.



3.



4.

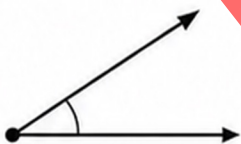


3. Estimate

Write a sensible estimate in degrees.

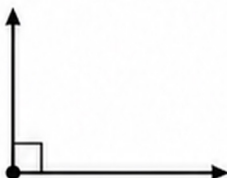
/4

1.



Estimate: _____ degrees

2.



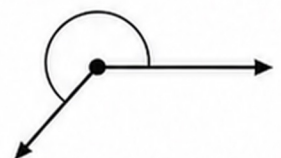
Estimate: _____ degrees

3.



Estimate: _____ degrees

4.



Estimate: _____ degrees

Angle Skills Check-Up

Name: _____

Page 2

4. Clock angles

Write acute, right or obtuse for the smaller angle.

/4

1.



2.



3.



4.



5. Turns

Write quarter turn, half turn, three-quarter turn or full turn.

/4

1.



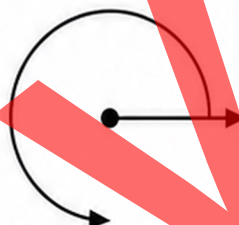
90 degrees

2.



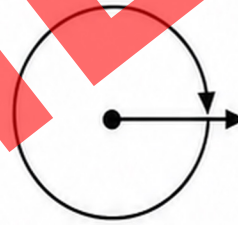
180 degrees

3.



270 degrees

4.



360 degrees

6. Explain your thinking

Mia says a reflex angle is smaller than a straight angle. Is Mia correct? Explain.

/4

Angle Skills Check-Up

Name: ANSWERS

Page 1

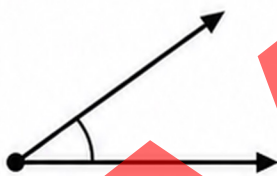
Show what you know about comparing, naming and estimating angles.

1. Name each angle type

Write acute, right, obtuse, straight or reflex.

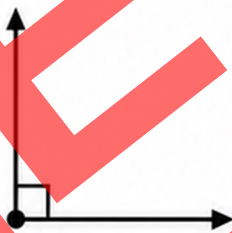
/6

1.



acute

2.



right

3.



obtuse

4.



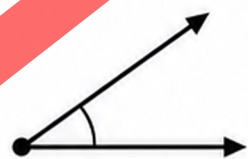
straight

5.



reflex

6.



acute

2. Compare

Circle the larger angle in each pair.

/4

1.



B

2.



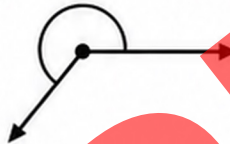
B

3.

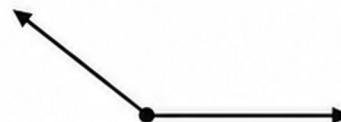


A

4.



A

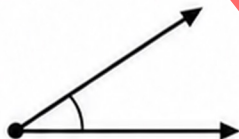


3. Estimate

Write a sensible estimate in degrees.

/4

1.



Estimate: 35 degrees

2.



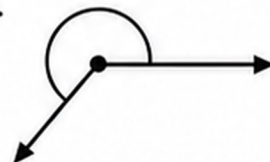
Estimate: 90 degrees

3.



Estimate: 120 degrees

4.



Estimate: 225 degrees

Angle Skills Check-Up

Name: **ANSWERS**

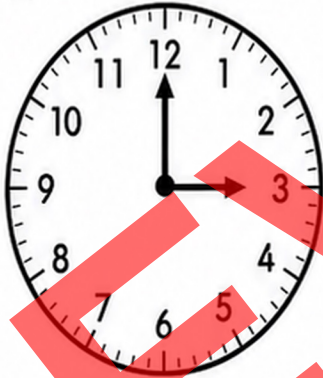
Page 2

4. Clock angles

Write acute, right or obtuse for the smaller angle.

/4

1.



right

2.



acute

3.



obtuse

4.



obtuse

5. Turns

Write quarter turn, half turn, three-quarter turn or full turn.

/4

1.



90 degrees

quarter turn

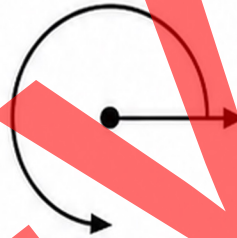
2.



180 degrees

half turn

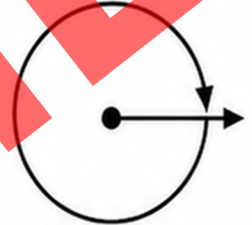
3.



270 degrees

three-quarter turn

4.



360 degrees

full turn

6. Explain your thinking

Mia says a reflex angle is smaller than a straight angle. Is Mia correct? Explain.

/4

No. A straight angle is 180 degrees. A reflex angle is more than 180 degrees and less than 360 degrees.

Angles yr 4 Rubric

Name: _____

Criteria	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
Names angle types	Needs support	Sometimes correct	Usually correct	Accurate and clear	Precise and explains why
Compares angle sizes	Needs support	Sometimes correct	Usually correct	Accurate and clear	Precise and explains why
Estimates and draws angles	Needs support	Sometimes correct	Usually correct	Accurate and clear	Precise and explains why
Explains turns and reasoning	Needs support	Sometimes correct	Usually correct	Accurate and clear	Precise and explains why
Use evidence from worksheets, activities, the assessment and classroom discussion.					

Angles yr 4



Learning Goal

We are learning to compare, name, estimate and draw angles.

We will use 90 degrees, 180 degrees and 360 degrees as benchmarks.



What Is an Angle?

An angle is the amount of turn between two rays or lines that meet.

The two rays are the arms. The meeting point is the vertex.



Angle Parts

Every angle has two arms, one vertex and an opening.

The opening tells us the size of the angle.



Degrees

Angles are measured in degrees.

A full turn is 360 degrees. A half turn is 180 degrees. A quarter turn is 90 degrees.



Right Angles

A right angle is exactly 90 degrees.

Use right angles as a benchmark when comparing angle sizes.



Acute Angles

An acute angle is smaller than a right angle.

Acute angles measure less than 90 degrees.



Obtuse Angles

An obtuse angle is bigger than a right angle but smaller than a straight angle.

Obtuse angles measure more than 90 degrees and less than 180 degrees.



Straight Angles

A straight angle is exactly 180 degrees.

It makes a straight line.



Reflex Angles

A reflex angle is more than 180 degrees and less than 360 degrees.

Look for the larger turn around the vertex.



Revolutions

A full revolution is one complete turn.

It measures exactly 360 degrees.



Compare Angles

To compare angles, look at the opening, not the length of the arms.

Longer arms do not mean a larger angle.



Estimate Angles

Use benchmark angles to estimate.

Ask: Is it close to 90 degrees, 180 degrees or 360 degrees?



Draw Angles

Start with one ray.

Draw the second ray so the opening matches the named angle type
or estimated size.



Clock Face Angles

Clock hands make angles.

The smaller angle at 3 o'clock is a right angle.



Turns in Real Life

We use turns when we rotate, face a new direction, read maps, code paths and describe movement.



Check Your Reasoning

Use words such as acute, right, obtuse, straight, reflex and revolution.

Explain using degree benchmarks.



This Week

You will sort, compare, draw, estimate and explain angles in diagrams, games, clocks and real-world turns.





Well Done!



Angles yr 4 Quiz



Question 1

Multiple choice: What is the point where two arms of an angle meet called?

- A. edge
- B. vertex
- C. ruler
- D. side length



Answer 1

B. The meeting point is called the vertex.



Question 2

True or false?

A right angle measures exactly 90 degrees.



Answer 2

True. A right angle is exactly 90 degrees.



Question 3

Short answer: Is an angle of 45 degrees acute, right or obtuse?



Answer 3

Acute. It is less than 90 degrees.



Question 4

Multiple choice: Which angle is larger?

- A. 70 degrees
- B. 90 degrees
- C. 120 degrees
- D. 45 degrees



Answer 4

C. 120 degrees is the largest angle listed.



Question 5

True or false?

Longer arms always make a larger angle.



Answer 5

False. Angle size depends on the opening, not the arm length.



Question 6

Short answer: What angle type measures more than 90 degrees and less than 180 degrees?



Answer 6

Obtuse.



Question 7

Multiple choice: A straight angle measures:

- A. 45 degrees
- B. 90 degrees
- C. 180 degrees
- D. 360 degrees



Answer 7

C. A straight angle measures 180 degrees.



Question 8

True or false?

A reflex angle is more than 180 degrees and less than 360 degrees.



Answer 8

True.



Question 9

Short answer: What is the angle type at 3 o'clock on a clock face?



Answer d

Right angle.



Question 10

Multiple choice: One full revolution measures:

- A. 90 degrees
- B. 180 degrees
- C. 270 degrees
- D. 360 degrees



Answer 10

D. One full revolution is 360 degrees.





Great Work!