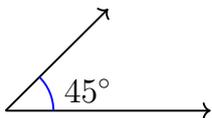# Worksheet 39: Angles — Naming, Measuring & Estimating

Year 6 Mathematics — Space & Geometry — Name:

_____

Section 1: Fluency — Naming Angles

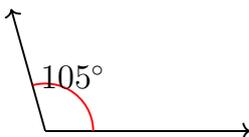**Question 1:** Identify the angle type shown below.

45°

Answer: _____

Question 2: Identify the angle type shown below.

Answer: _____

Question 3: Identify the angle type shown below.

105°

Answer: _____

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Question 4: Is an angle of

$$135°$$

acute, right, or obtuse?

Answer: _____

Question 5: Is an angle of

$$89°$$

acute, right, or obtuse?
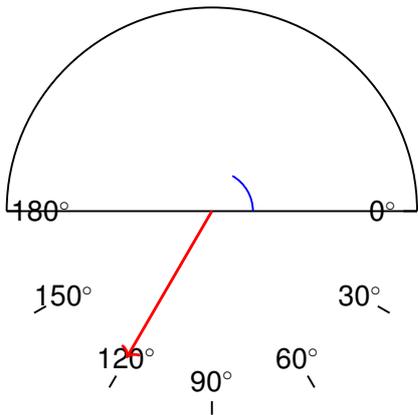
Answer: _____

Angle Ace!

Why did the angle go to the beach?
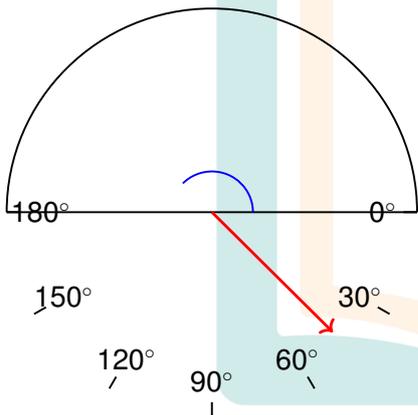*Because it wanted to get more than 90 degrees!*

Section 2: Reasoning — Reading a Protractor

Question 6: Read the protractor diagram. How many degrees is this angle?
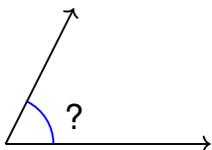
Answer: _____

Question 7: Read the protractor diagram. How many degrees is this angle?

Answer: _____

Question 8: Estimate the size of the angle shown below (just make your best guess).

Answer: _____

3

Question 9: Which angle is larger:

$$75°$$

or

$$105°$$

?

Answer: _____

Question 10: A straight angle measures exactly how many degrees?

Answer: _____

Protractor Pro!

What do you call an angle that's always complaining?
A whine-angle!

Section 3: Challenge — Reflex Angles

Question 11: A reflex angle is larger than

$$180°$$

but smaller than

$$360°$$

4

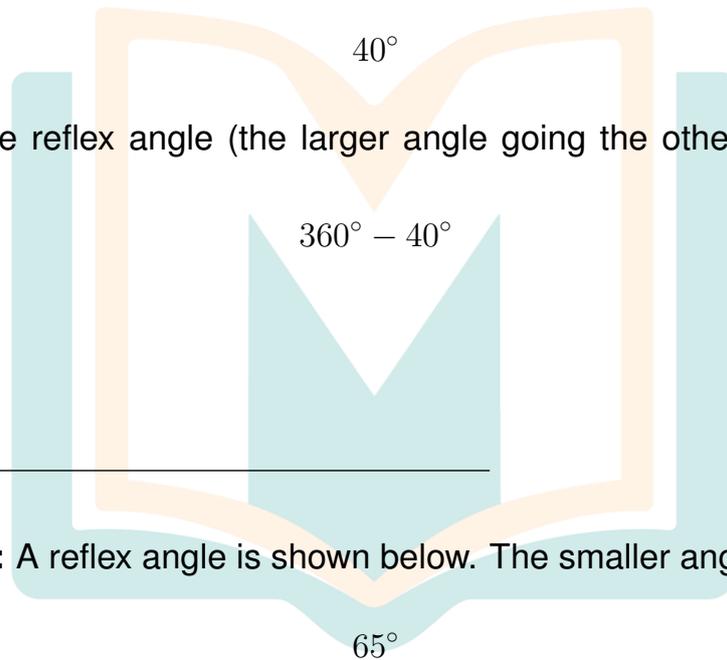. Draw a rough sketch of an angle that is about

$$200°$$

.

Question 12: If the inside angle at a point is

$$40°$$

, calculate the reflex angle (the larger angle going the other way around). *Hint:*
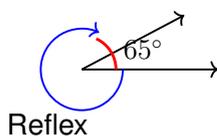
$$360° - 40°$$

.

Answer: _____

Question 13: A reflex angle is shown below. The smaller angle is

$$65°$$

. What is the reflex angle?

65°

Reflex

Answer: _____

Question 14: True or False: A reflex angle is always greater than a straight angle.

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Answer: _____

Question 15: The hour hand of a clock moves from 12 to 11. What reflex angle does it sweep through? *Hint:* Each hour represents

$$30°$$

.

Answer: _____

Geometry Genius!

Why was the obtuse angle always so frustrated?
Because it was never right!

Well done! Check your answers on the next page.

Worksheet 39: Answer Key

Section 1: Fluency — Naming Angles

Question 1: Acute angle (or Acute)

Question 2: Right angle (or Right)

Question 3: Obtuse angle (or Obtuse)

Question 4: Obtuse

Question 5: Acute

Section 2: Reasoning — Reading a Protractor

Question 6:

$$120°$$

Question 7:

$$45°$$

Question 8: Approximately

$$60°$$

to

$$65°$$

(accept reasonable estimates)

Question 9:

$$105°$$

Question 10:

$$180°$$

Section 3: Challenge — Reflex Angles

Question 11: Student drawing should show an angle slightly larger than a straight line (accept reasonable sketches)

Question 12:

$$320°$$

(

$$360° - 40° = 320°$$

)

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Question 13:

$$295°$$

(

$$360° - 65° = 295°$$

)

Question 14: True

Question 15:

$$330°$$

(The short way is

$$30°$$

, so reflex is

$$360° - 30° = 330°$$

)

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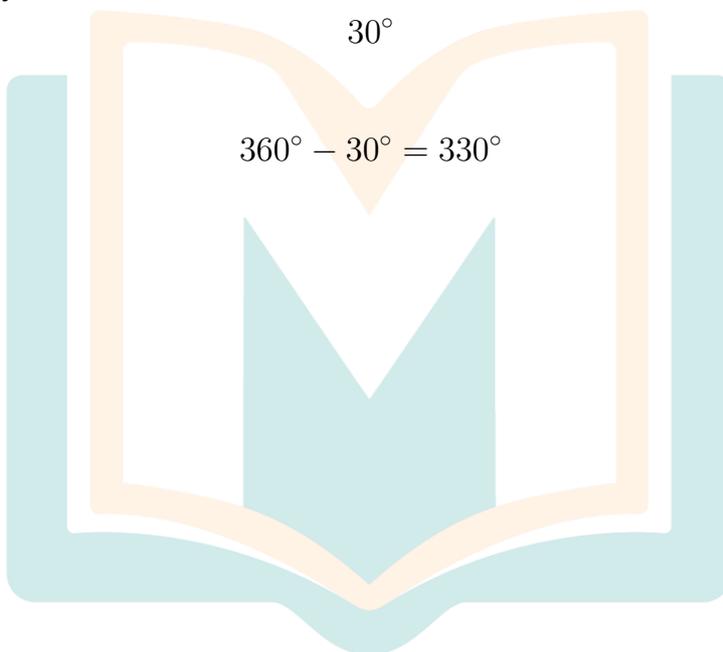
Worksheet 40: Finding Unknown Angles

Year 6 Mathematics — Space & Geometry — Name:

_____

Section 1: Fluency — Angles on a Straight Line (

$180°$

)

Question 1: Find the missing angle

x

. Remember: Angles on a straight line add to

$180°$

.

Excellent work! Check your answers on the next page.

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Worksheet 40: Answer Key

Section 1: Fluency — Angles on a Straight Line (

$$180°$$

)
Question 1:

$$x = 70°$$

(

$$180° - 110° = 70°$$

)
Question 2:

$$a = 55°$$

(

$$180° - 125° = 55°$$

)
Question 3:

$$b = 90°$$

(

$$180° - 90° = 90°$$

)
Question 4:

$$p = 34°$$

(

$$180° - 146° = 34°$$

)
Question 5:

$$q = 117°$$

(

$$180° - 63° = 117°$$

10

)

Section 2: Reasoning — Vertically Opposite Angles

Question 6:

$$y = 75°$$

(Vertically opposite angles are equal)

Question 7:

$$m = 130°$$

(Vertically opposite angles are equal)

Question 8:

$$120°$$

(Vertically opposite angles are equal)

Question 9:

$$45°$$

(Vertically opposite angles are equal)

Question 10:

$$n = 98°$$

(Vertically opposite angles are equal)

Section 3: Challenge — Angles at a Point (

$$360°$$

)

Question 11:

$$z = 150°$$

(

$$360° - 90° - 120° = 150°$$

)

Question 12:

$$135°$$

(

$$360° - 85° - 140° = 135°$$

11

)

Question 13:

$$w = 90°$$

(

$$360° - 100° - 110° - 60° = 90°$$

)

Question 14:

$$k = 120°$$

(

$$360° - 70° - 80° - 90° = 120°$$

)

Question 15:

$$360°$$

Question 16:

$$72°$$

(

$$360° \div 5 = 72°$$

)

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