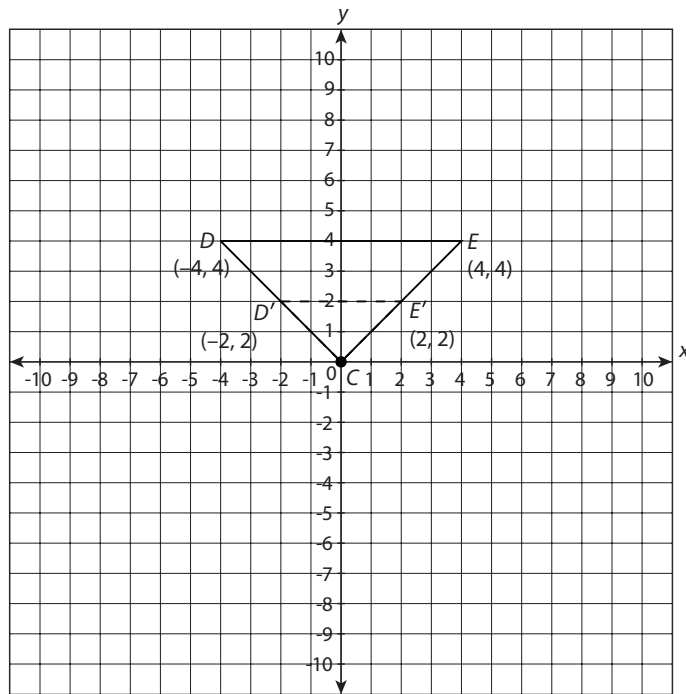


Geometry Unit 2 Test
Re-Take

1.

Determine the scale factor of the dilation below.



a. $k = 2$

c. $k = \frac{1}{2}$

b. $k = \frac{1}{4}$

d. $k = 1$

2.

\overline{AB} is 6.7 units long. If \overline{AB} is dilated by a scale factor of $k = 3.2$, what is the length of $\overline{A'B'}$?

a. 21.4 units

b. 2.1 units

c. 0.5 unit

d. 1 unit

3.

A triangle congruent to $\triangle ABC$ is to be constructed. Only three components are measured. Which three components, if constructed in the order listed, will always create a congruent triangle?

a. side-side-angle

b. angle-angle-angle

c. angle-side-angle

d. Only the three side lengths can be used to create a congruent triangle.

4.

Which set of equivalent measures does not indicate that two triangles must be congruent?

- a. angle-angle-angle
- b. angle-side-angle
- c. side-angle-side
- d. angle-angle-side

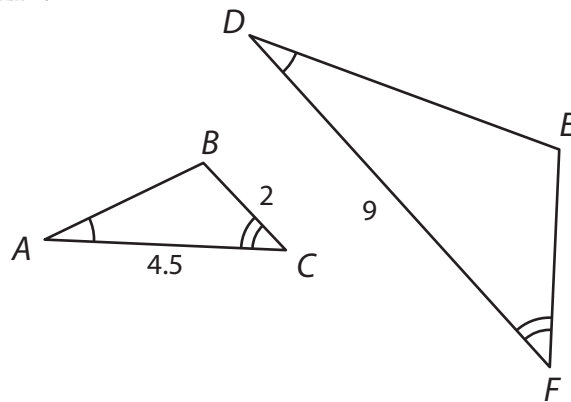
5.

$\triangle ABC$ and $\triangle DEF$ are congruent triangles. Which statement is known to be true?

- a. $\overline{AB} \cong \overline{BC}$
- b. $\overline{AB} \cong \overline{EF}$
- c. $\overline{AC} \cong \overline{DF}$
- d. $\overline{AB} \cong \overline{DF}$

6.

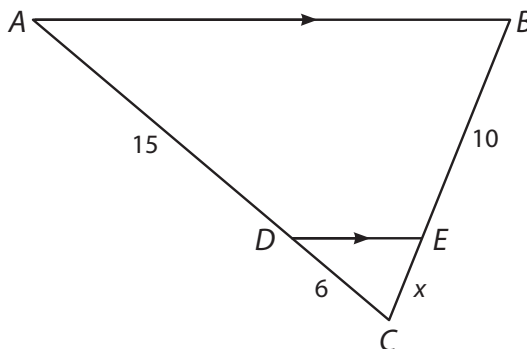
What is the length of \overline{EF} ?



- a. 4 units
- b. 1 unit
- c. 9 units
- d. 2 units

7.

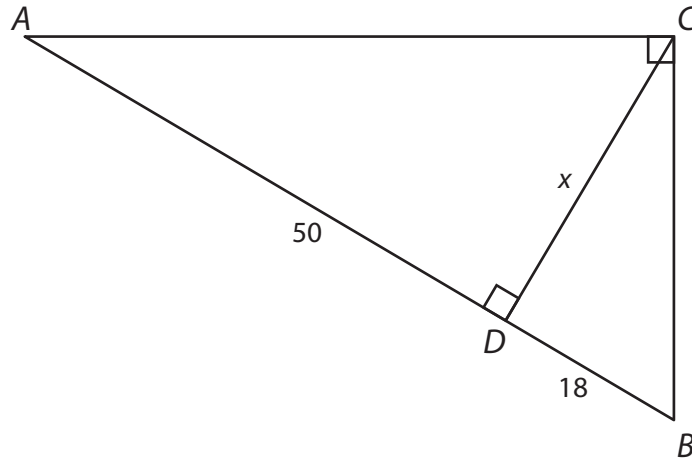
$\triangle ABC \sim \triangle DEC$. What is the length of \overline{EC} ?



- a. 25 units
- b. 9 units
- c. 4 units
- d. There is not enough information to determine the length of \overline{EC} .

8.

$\triangle ABC$ is a right triangle. Find the length of x , which is the altitude of $\triangle ABC$.



- a. 30 units
- b. 7.7 units
- c. 2.7 units
- d. There is not enough information to determine the length of x .

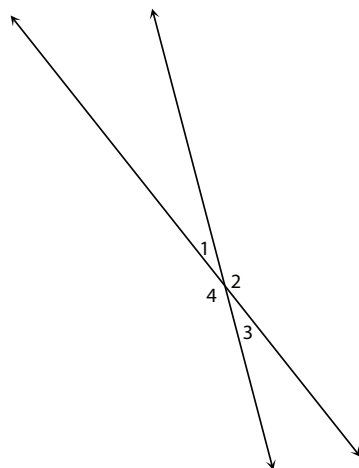
9.

The length of a building's shadow is 107.2 feet. At the same time of day, a 1.8-foot-tall tree casts a shadow that is 2.4 feet long. What is the height of the building?

- a. 80.4 feet
- b. 142.9 feet
- c. 24.8 feet
- d. 463.1 feet

10.

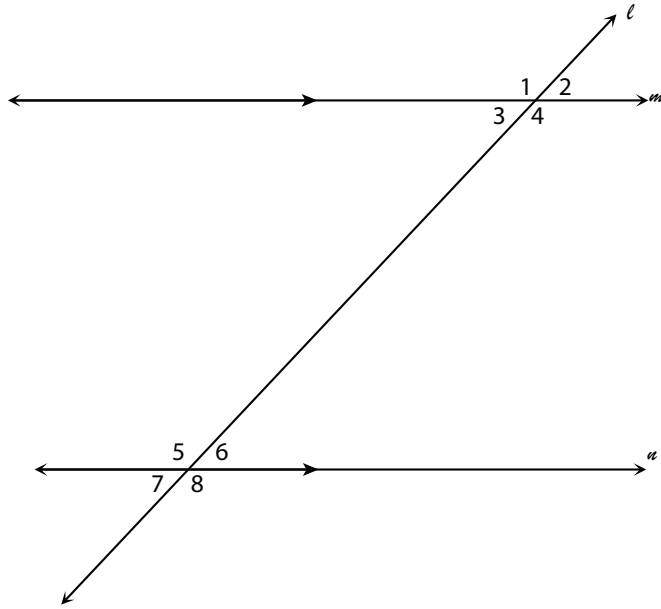
Find $m\angle 4$ in the diagram below if $m\angle 2 = 9(x+6)$ and $m\angle 4 = 2(5x+21)$.



- a. 18°
- b. 157°
- c. 162°
- d. 12°

11.

In the diagram below, ℓ is the transversal of the parallel lines m and n . Find $m\angle 3$ if $m\angle 4 = 5(x+11)$ and $m\angle 5 = 11x - 17$.



a. 115°

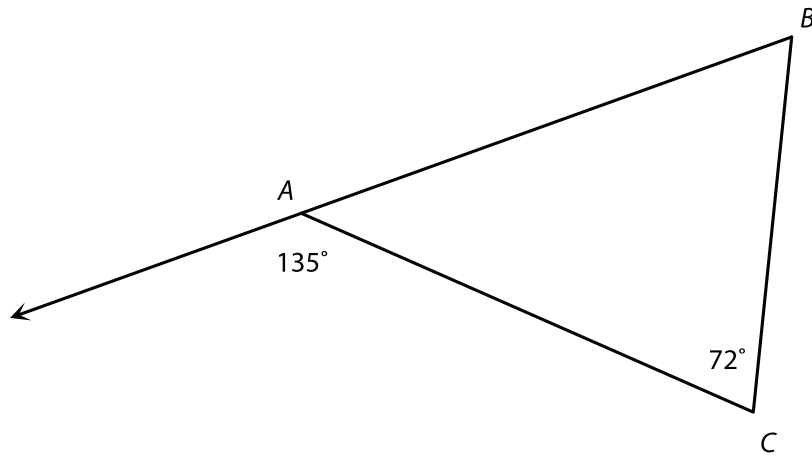
c. 78°

b. 65°

d. 12°

12.

What is the measure of $\angle B$?



a. 45°

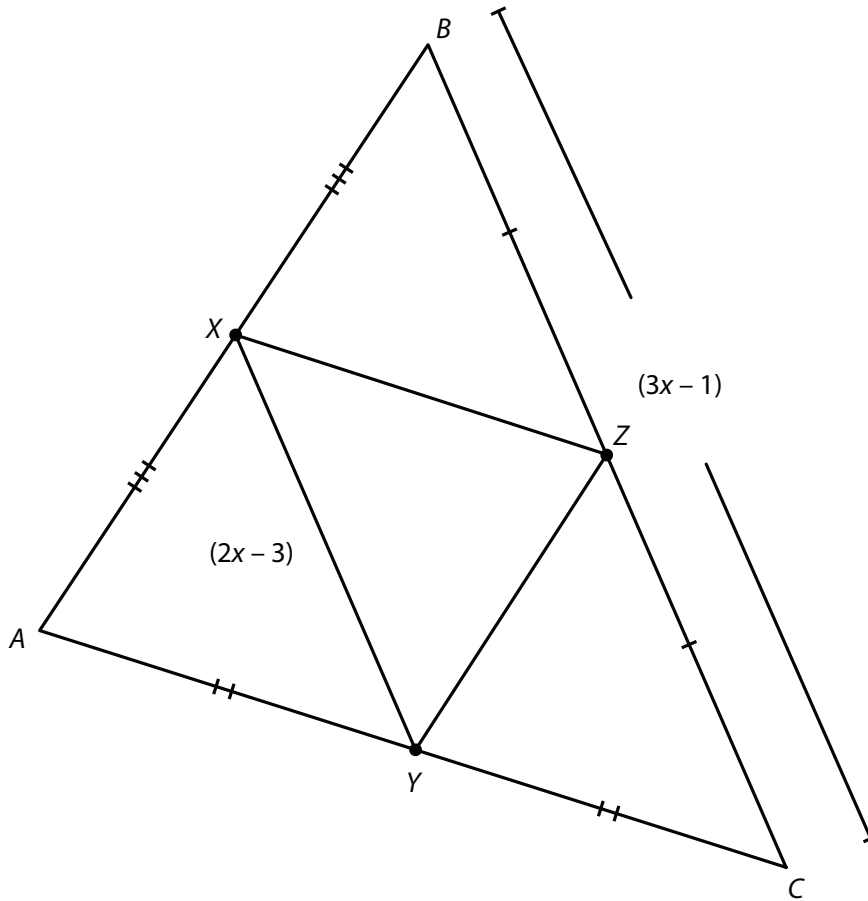
c. 108°

b. 63°

d. 117°

13.

If $BC = 3x - 1$ and $XY = 2x - 3$, what is the length of XY ?



- a. 5 units
- b. 7 units
- c. 14 units
- d. 28 units

14.

Determine whether these four vertices form a parallelogram: $S(-7, 3)$, $T(-1, 3)$, $U(-2, 1)$, $V(-8, 1)$.

- a. No, because both pairs of opposite sides are not parallel.
- b. Yes, because both pairs of opposite sides are parallel.
- c. No, because both pairs of opposite sides are not congruent.
- d. Yes, because both pairs of opposite sides are not congruent.

15.

Classify a quadrilateral as precisely as possible given four vertices: $D(-5, 2)$, $E(-2, -3)$, $F(8, 3)$, $G(5, 8)$.

- a. square
- b. kite
- c. isosceles trapezoid
- d. rectangle