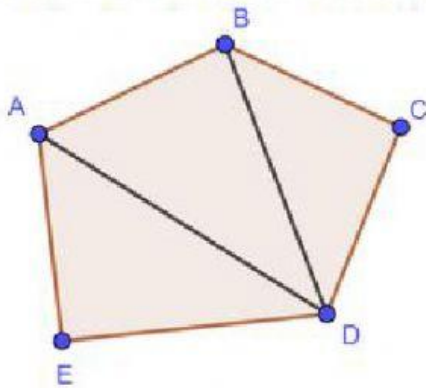


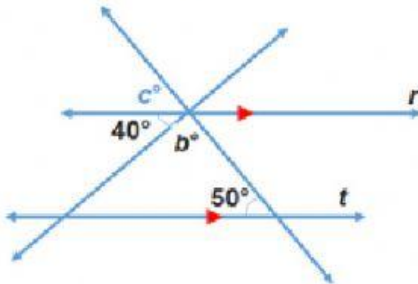
1-

What is the sum of the interior angle measures of pentagon $ABCDE$?



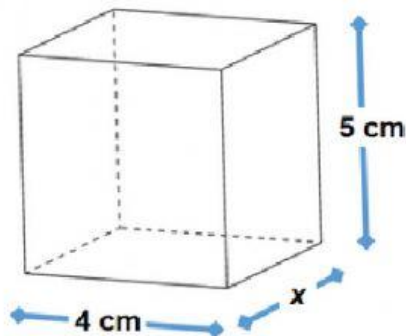
2-

Lines r and t are parallel. What is the value of b ?



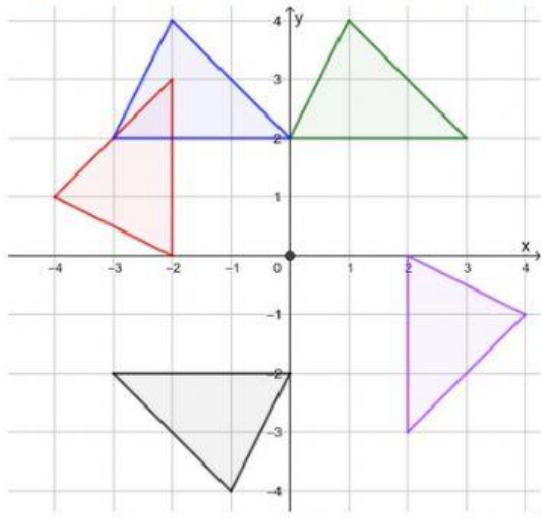
3-

The volume of the rectangular prism below is 60 cm^3 . Find the value of x .



4-

Which of the figures shows a rotation of the green triangle 90° clockwise about the origin?



a ☐ purple

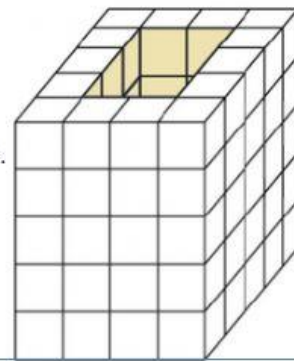
b ☐ gray

c ☐ red

d ☐ blue

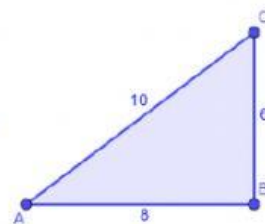
5-

The figure on the right shows a rectangular prism made out of cubes. There is a hole that goes all the way to the bottom of the prism. How many cubes are needed to fill the hole inside of the prism?



6-

Which of the following is used to show that triangle ABC is a right triangle?



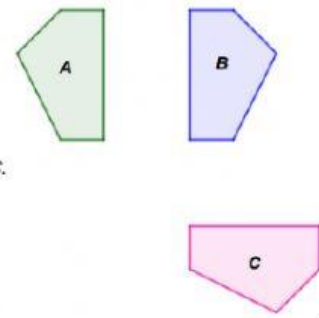
a ☐ $6 + 8 > 10$

b ☐ $6 + 8 = 10 + 4$

c ☐ $6^2 + 8^2 = 10^2$

d ☐ $(6 + 8)^2 = 14^2$

7-



Describe the sequence of transformations that maps figure A onto figure B then onto figure C.

- a ☐ Reflection then rotation 90° ($\frac{1}{4}$ turn) clockwise
- b ☐ Translation then rotation 90° ($\frac{1}{4}$ turn) clockwise
- c ☐ Reflection then rotation 180° ($\frac{1}{2}$ turn)
- d ☐ Reflection then translation

8-

The table on the right shows the length of the shadow of 4 plants with different heights at the same time of the day.

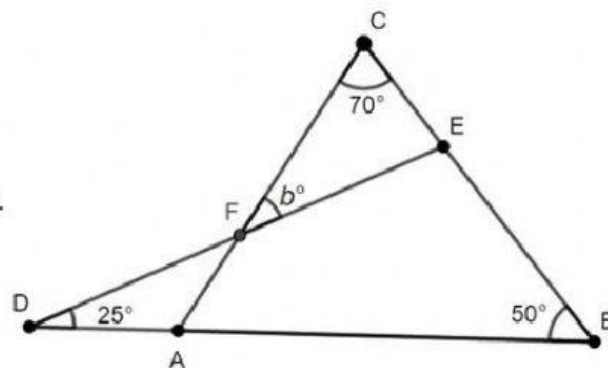
Find the height of the plant that casts a shadow of 90 centimeters at the same time of the day.

Height(cm)	Shadow(cm)
20	30
30	45
40	60

- a ☐ 70 cm
- b ☐ 60 cm
- c ☐ 80 cm
- d ☐ 72 cm

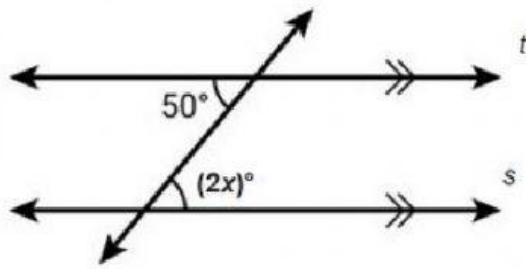
9-

Find the value of b .



10-

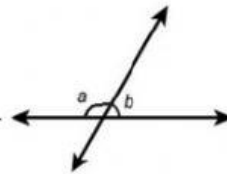
Lines t and s are parallel.
Find the value of x .



11-

Complete the statement.

Angles a and b form a linear pair so they are _____

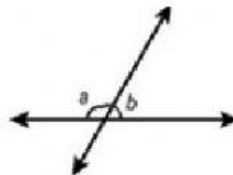


- a ☐ congruent
- b ☐ non-adjacent
- c ☐ complementary
- d ☐ supplementary

12-

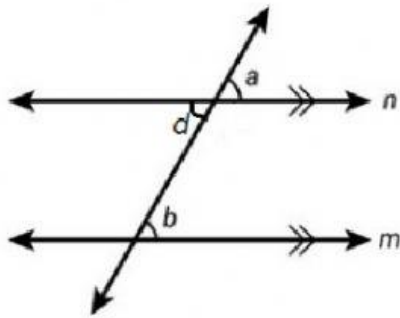
Complete the statement.

Angles a and b form a linear pair so they are _____



- a ☐ congruent
- b ☐ non-adjacent
- c ☐ complementary
- d ☐ supplementary

13-



Two parallel lines m and n are cut by a transversal.

Find the reason for the statement:

$$\angle d \cong \angle a$$

- a ☐ Alternate exterior angles theorem
- b ☐ Corresponding angles postulate
- c ☐ Vertical angles theorem
- d ☐ Alternate interior angles theorem

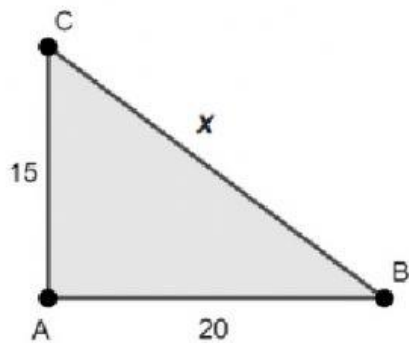
14-

Find the measure of an exterior angle of a regular hexagon.

- a ☐ 360°
- b ☐ 120°
- c ☐ 180°
- d ☐ 60°

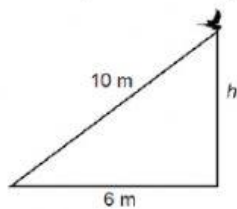
15-

Triangle ABC is right at A . Find the value of x .



16-

The triangle shown is a right triangle. Write an equation that can be used to find the height of the bird. Then solve.



17-

Use the distance formula to find the distance between $A(4, -3)$ and $B(-2, 3)$. Round to the nearest tenth if necessary.

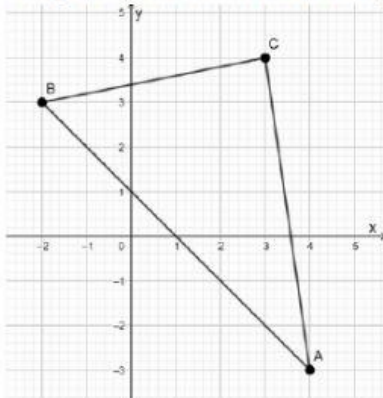
- a ☐ 4.9
- b ☐ 6.0
- c ☐ 12.0
- d ☐ 8.5

18-

$\triangle ABC \cong \triangle DEF$, and $m\angle B = 50^\circ$. Find the measure of $\angle E$.

19-

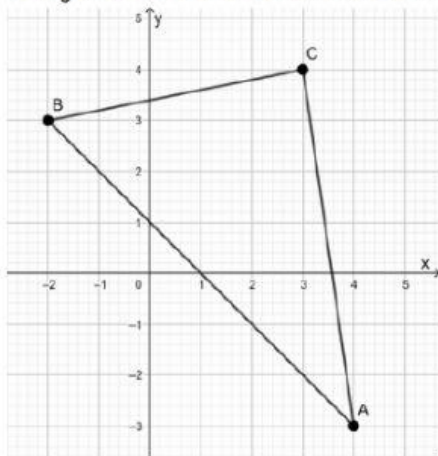
Triangle ABC is translated 3 units to the right and 5 units down to obtain triangle $A'B'C'$. Find the coordinates of A' .



- a ☐ (7, -8)
- b ☐ (4, 2)
- c ☐ (4, -8)
- d ☐ (7, 2)

20-

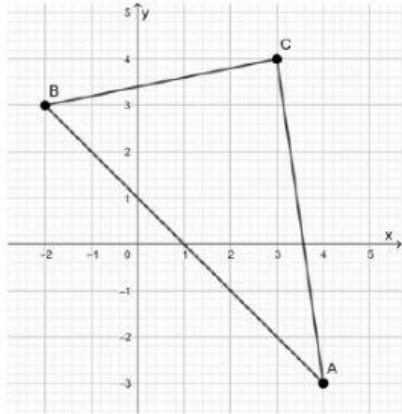
Triangle ABC is reflected over the x -axis to obtain triangle $A'B'C'$. Find the coordinates of B' .



- a ☐ (2, -3)
- b ☐ (-2, -3)
- c ☐ (2, 3)
- d ☐ (-2, 3)

21-

Triangle $A'B'C'$ is the image of triangle ABC after a dilation with a scale factor of 3. Find the coordinates of C' .



- a ☐ (9, 12)
- b ☐ (-3, -4)
- c ☐ (6, 7)
- d ☐ (-3, 4)

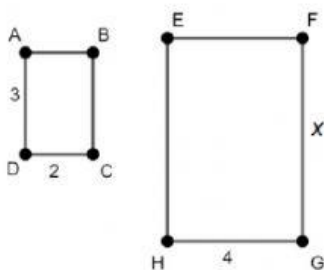
22-

$\triangle ABC \cong \triangle DEF$, $AB = 6$, $BC = 5$ and $AC = 10$. Find DE .

- a ☐ 6
- b ☐ 12
- c ☐ 10
- d ☐ 5

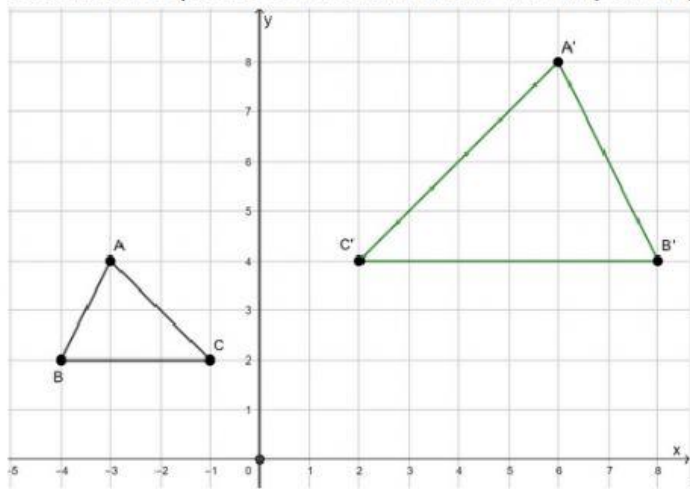
23-

Rectangle $ABCD$ is similar to rectangle $EFGH$. Find the value of x .



24-

Describe a sequence of transformations that maps triangle ABC onto triangle $A'B'C'$.



- a ☐ translation then dilation
- b ☐ Translation then rotation
- c ☐ Reflection over the x -axis then rotation
- d ☐ Reflection over the y -axis then dilation

25-

Find the numeric value of the slope shown by the slope triangle.

