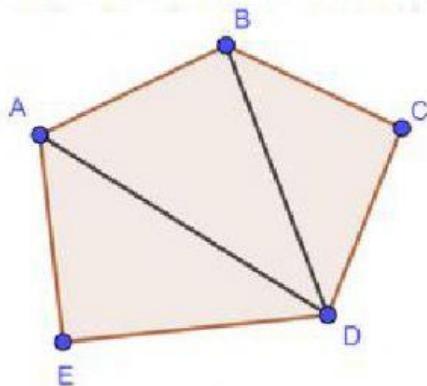


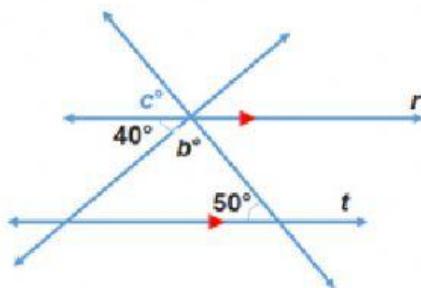
1-

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



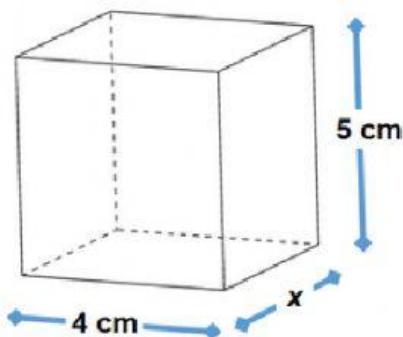
2-

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



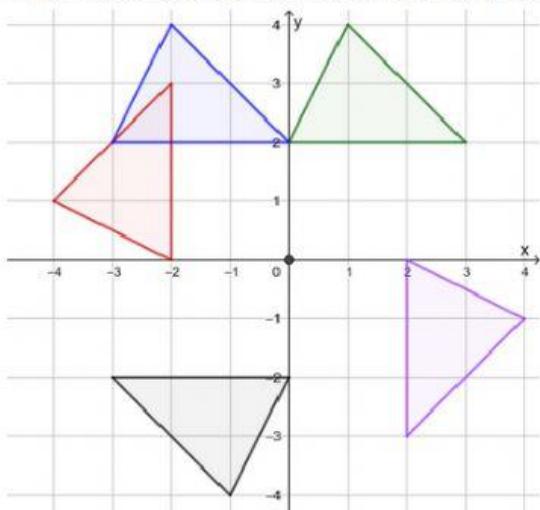
3-

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

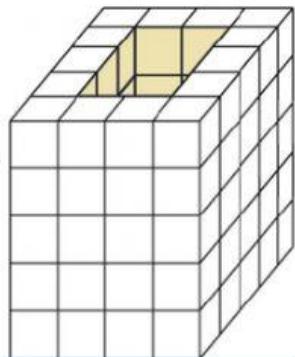
b gray

c red

d blue

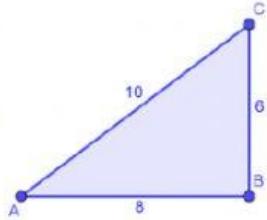
5-

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?



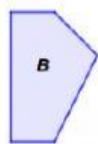
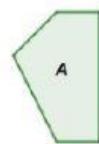
a $6 + 8 > 10$

b $6 + 8 = 10 + 4$

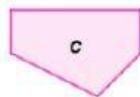
c $6^2 + 8^2 = 10^2$

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-

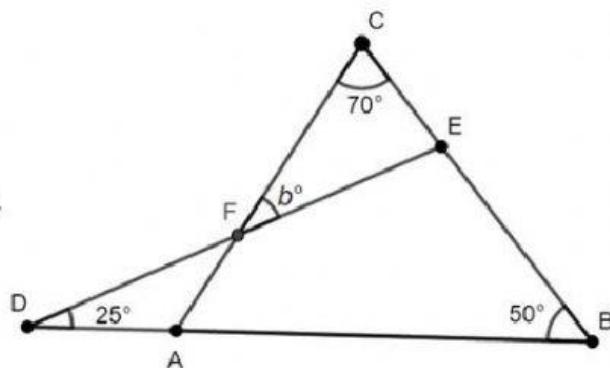
The table on the right shows the length of the shadow of 4 plants with different heights at the same time of the day.

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

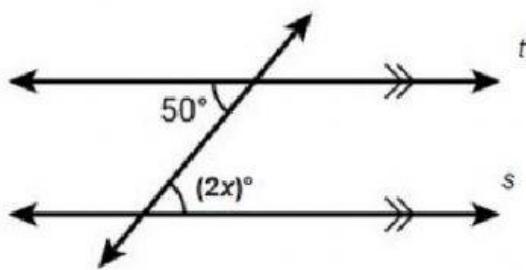
- a 70 cm
- b 60 cm
- c 80 cm
- d 72 cm

9-



Find the value of b .

10-



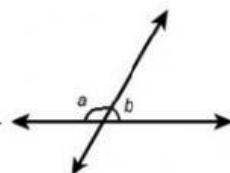
Lines t and s are parallel.

Find the value of x .

11-

Complete the statement.

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

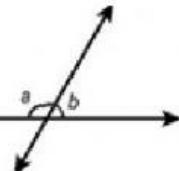


- a congruent
- b non-adjacent
- c complementary
- d supplementary

12-

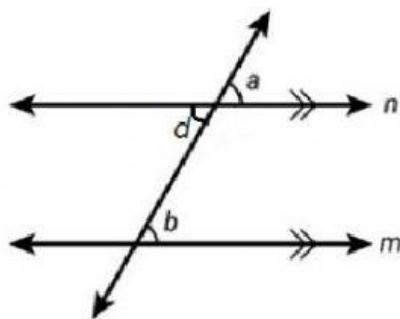
Complete the statement.

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

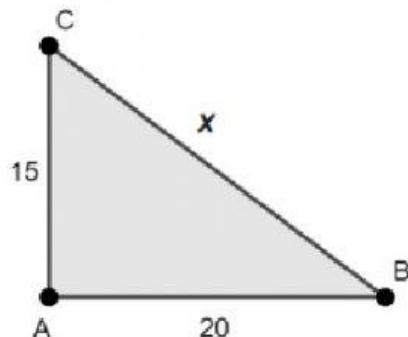
14-

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

- a 360°
- b 120°
- c 180°
- d 60°

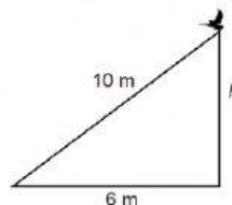
15-

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.

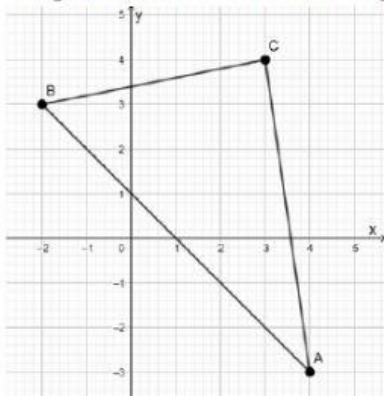
- a 4.9
- b 6.0
- c 12.0
- d 8.5

18-

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

19-

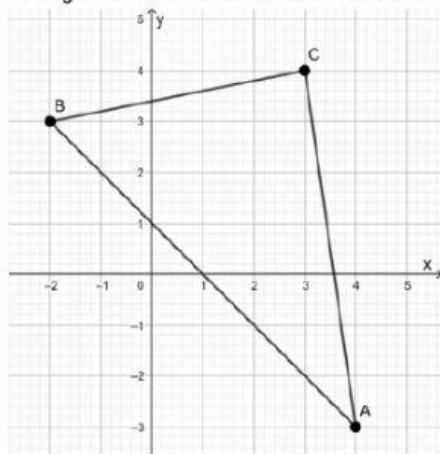
Triangle ABC is translated 3 units to the right and 5 units down to obtain triangle $A'B'C'$. Find the coordinates of A' .



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

20-

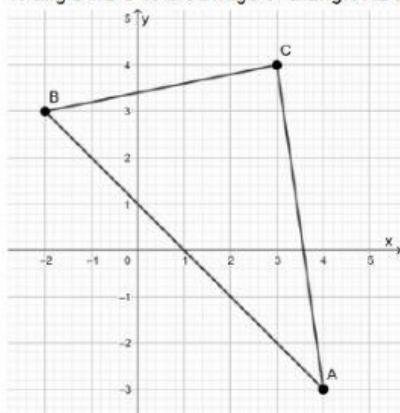
Triangle ABC is reflected over the x -axis to obtain triangle $A'B'C'$. Find the coordinates of B' .



- 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)

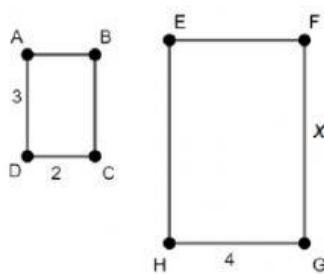
22-

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

- a 6
- b 12
- c 10
- d 5

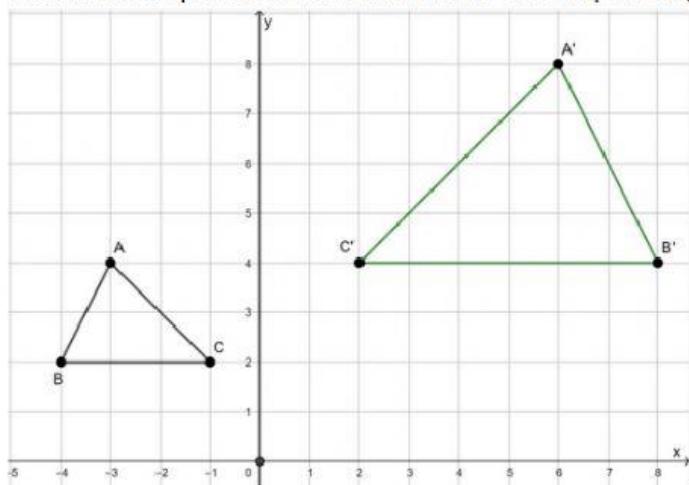
23-

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.

