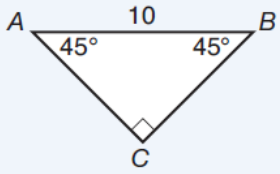
Review/Quiz Practice

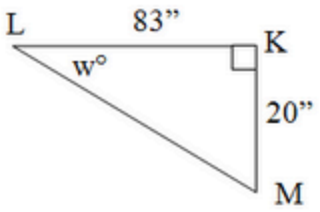
#1.

Find the length of side AC in the 45°-45°-90° triangle below.

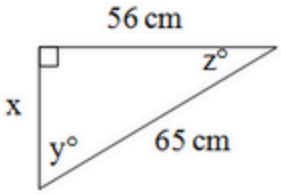


#2- 4

. Determine the measure of angle w to the nearest degree.



10. Use the Pythagorean Theorem, SOHCAHTOA, and the fact that the sum of the three interior angles of a triangle sum to 180° to determine all unknown sides and angles of the triangle pictured at right. Round all quantities, when necessary, to the nearest hundredth. (Note: you could also use an online Right Triangle Calculator.)



15. The following equations specify a specific right triangle: $\tan C = \frac{38}{40}$; $\cos B = \frac{38}{x}$; $\sin A = 1$

a) Make a labeled sketch of this triangle.

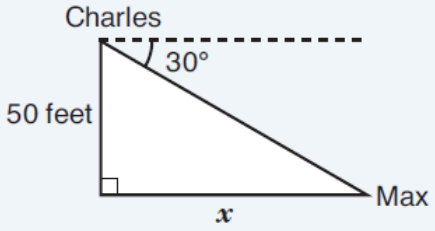
b) Determine the measure of angle B to the nearest tenth.

c) Determine the measure of angle C to the nearest tenth.

d) Determine the length of side x to the nearest hundredth.

5.

Charles is looking out a window from a point 50 feet above the ground. When Charles looks down at an angle of depression of 30°, he sees his dog Max. To the nearest foot, how far is Max from the base of the building?



6.

Which equation represents the missing step in the solution process?

Step 1: $2(s + 4) - 4 = 10$

Step 2:

Step 3: $2s + 4 = 10$

Step 4: $2s = 6$

Step 5: $s = 3$

A $2s + 8 - 4 = 10$

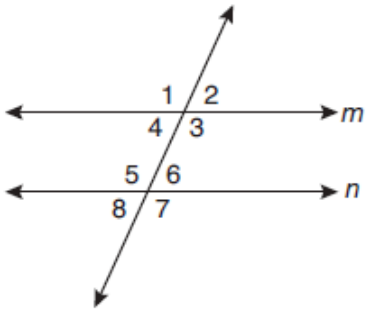
B $2s + 4 - 4 = 10$

C $4s + 8 - 4 = 10$

D $2s + 24 - 4 = 10$

7.

In the diagram below, lines m and n are parallel.



Which of the following can you correctly conclude from the diagram?

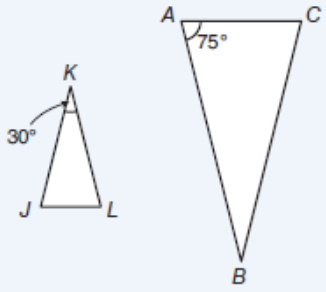
A $\angle 1$ and $\angle 2$ are complementary because their sum is 90°.

B $\angle 1$ is congruent to $\angle 7$ because corresponding and vertical angles are congruent.

C $\angle 2$ and $\angle 8$ are supplementary because their sum is 180°.

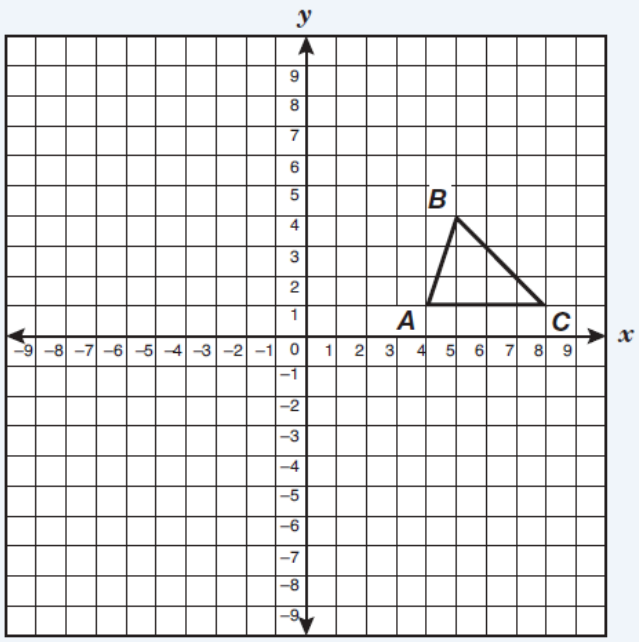
8.

$\triangle JKL$ and $\triangle ABC$ are both isosceles triangles. Is $\triangle JKL$ similar to $\triangle ABC$?



9.

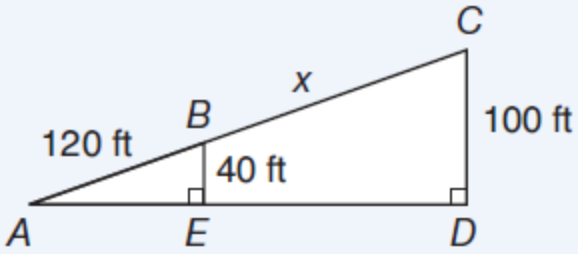
The graph of $\triangle ABC$ is shown below.



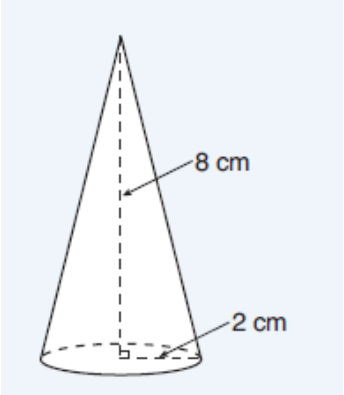
Find the coordinates of $\triangle A'B'C'$, the image of $\triangle ABC$ reflected across the y-axis and translated 2 units up.

10.

The diagram below shows a portion of a bridge support. What is the distance from point B to point C?

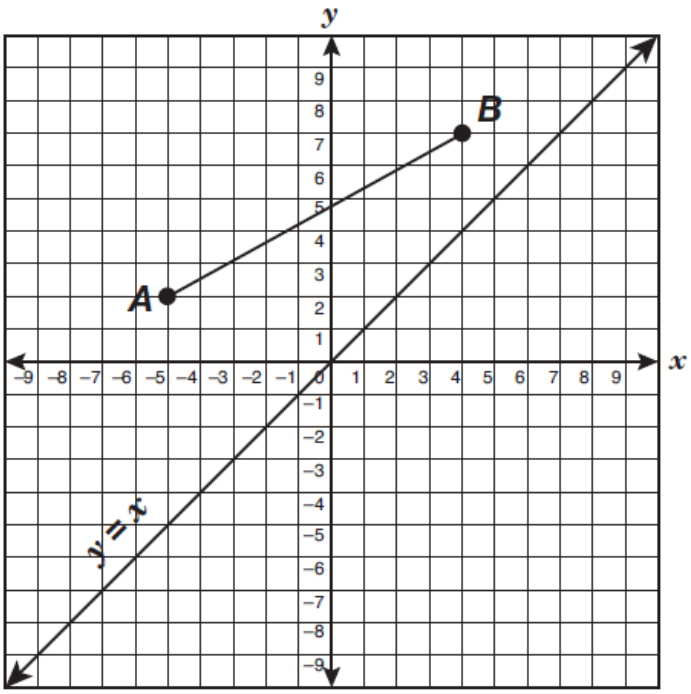


11. What is the measure of the diagonal (or slant) of the cone?



12.

The graph below shows the line $y = x$ and $\overline{AB}$ with endpoints at $(-5, 2)$ and $(4, 7)$. What are the coordinates of the endpoints of $\overline{A'B'}$ after $\overline{AB}$ is reflected across $y = x$?



14. If a figure with coordinates (m, n-2) is dilated by 4 what will the new coordinates be?

15. If a figure with coordinates (2m, 3n) is reflected across the y axis (QI → QII) what will the new coordinates be?

16. If a figure with coordinates (m, n-2) is translated 4 units down & 2 units left what will the new coordinates be?

14.

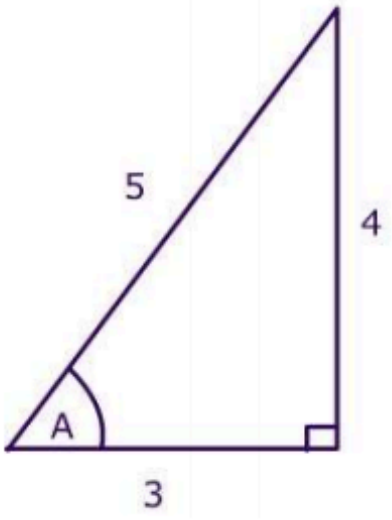
A teacher asks the class if they can express the sin(A) in Triangle 1 and the sin(b) in triangle 2.

Jose says $\sin(A) = \frac{4}{5}$ and sin(b) does not exist.

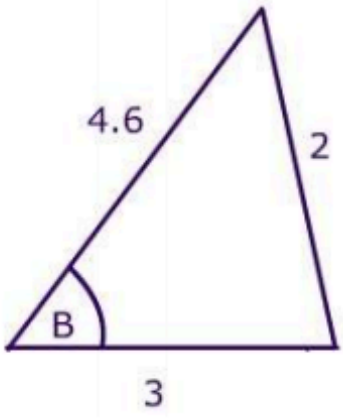
Jenny says $\sin(A) = \frac{4}{5}$ and $\sin(B) = \frac{2}{4.6}$

Who is correct? (explain your reasoning)

Triangle 1



Triangle 2

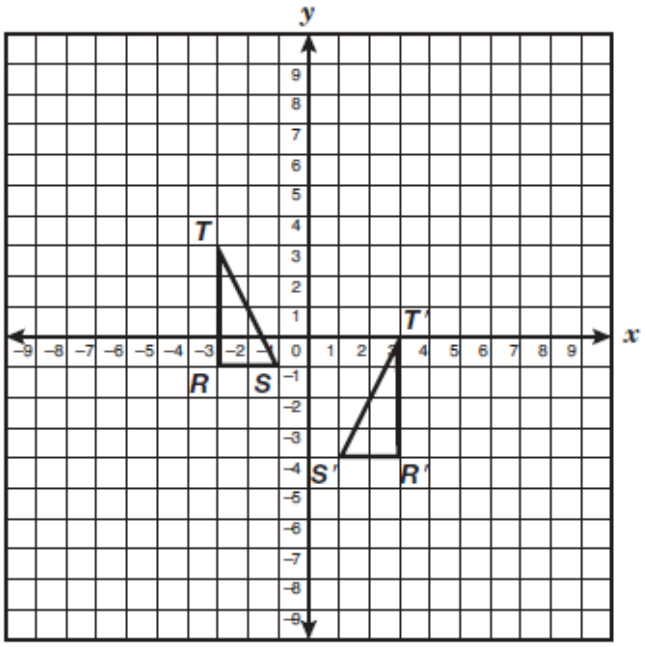


15.

3. Calculate the value of z to the nearest hundredth: $\tan 24° = \frac{z}{34.627}$

16. Find sinB when cosB = 2/7

Which transformation of $\triangle TRS$ creates $\triangle T'R'S'$ shown below?



A Reflect $\triangle TRS$ across the y-axis and then translate it 3 units down

B Translate $\triangle TRS$ 4 units right and 3 units down

C Reflect $\triangle TRS$ across the x-axis and then translate it 6 units down

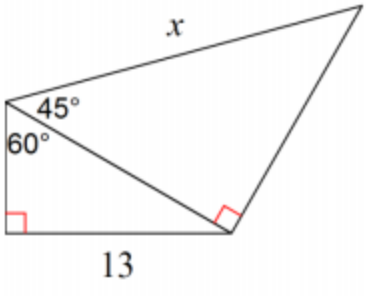
D Translate $\triangle TRS$ 6 units right and 3 units down

7) In triangle XYZ, $\angle y = 90^\circ$ XY = 7, YZ = 24, and XZ = 25, which ratio represents cosine of $\angle x$?

(1) $\frac{7}{24}$ (3) $\frac{7}{25}$

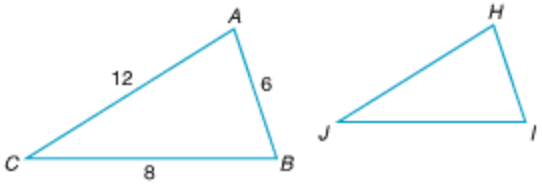
(2) $\frac{24}{25}$ (4) $\frac{24}{7}$

8)



17.

1. The perimeter of $\triangle HIJ$ is 13 units, and $\triangle ABC \sim \triangle HIJ$. Find HJ.



○ A. 13 ○ B. 3

○ C. 6 ○ D. 4