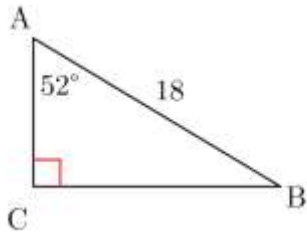


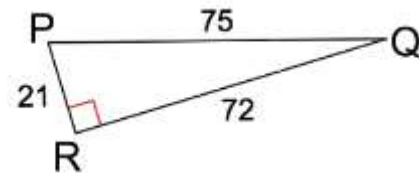
1. A right triangle has legs 10 and 24. Find  $\cos \theta$  where  $\theta$  is the smallest angle in the triangle. Give your answer as a reduced fraction.

2. If  $\tan \theta = \frac{7}{24}$ , find  $\sin \theta$ .

3. Find the length of AC.



4. Find the measure of each acute angle in the triangle below to the nearest degree.

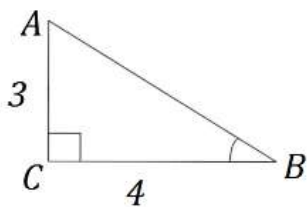


SRT-C7a

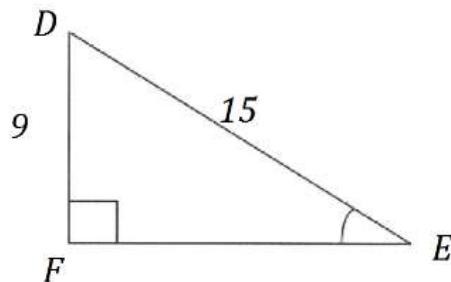
5.  $\sin(27^\circ)$  is equal to the cosine of what angle measure?

6. A and B are complementary angles. If  $\tan A = \frac{20}{21}$ , find  $\cos B$ .

7. Which of the following is equivalent to  $\sin E$ ? Select ALL that apply.



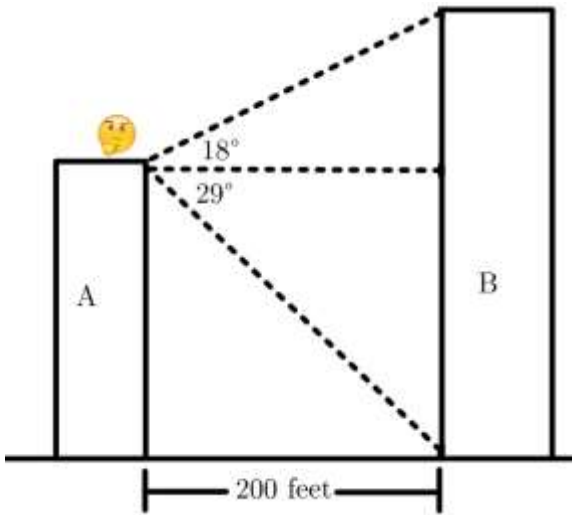
$\triangle ABC \sim \triangle DEF$



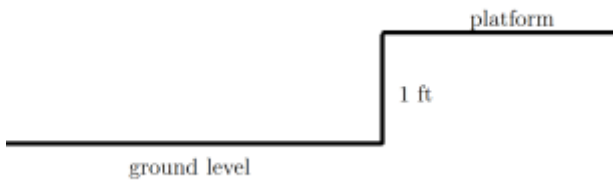
- $\cos D$
- $\sin D$
- $\tan A$
- $\sin B$
- $\tan E$
- $\cos A$
- $\sin A$

SRT-C8a

8. A person is at the top of a building and uses a clinometer to measure the angles of elevation and depression to the top and bottom of another, taller building located 200 feet away [see figure below]. How tall, to the nearest foot, is each building?



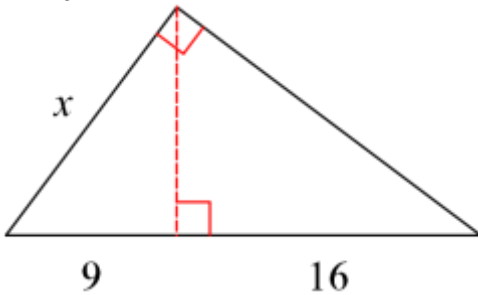
9. A 36-inch long plywood board is being used as a makeshift ramp to reach an elevated platform that is 1 foot above the ground [see below]. If the angle the board makes with the ground is  $20^\circ$  or greater, it will not be safe to use. Is the ramp safe to use? Show the calculations that lead to your conclusion.



SRT-B5d

Find the value of  $x$ .

10.



11.

