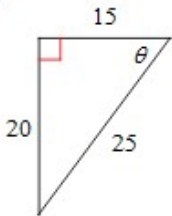# Unit 1 Trigonometry – Review
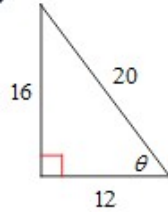
Show all of your work.

1. Find the value of the **trig ratio** indicated. Express your answer as a fraction (simplified, if necessary).
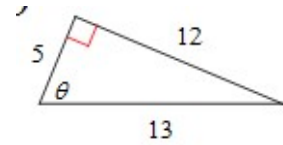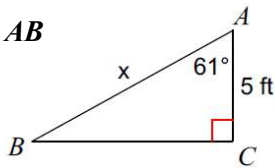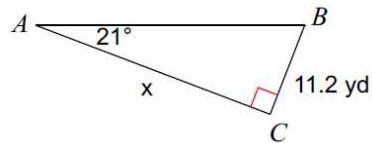
a) $\cos\theta$

b) $\sin\theta$

c) $\tan\theta$

2. Find the measure of the indicated **side**. Round your final answer to the nearest tenth.

a) side AB

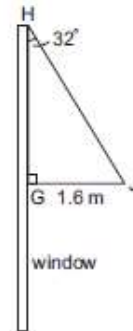b) side b

c) $\triangle ABC$ is a right triangle in which side $AB = 14$ yd, $\angle B = 51°$ and $\angle C = 90°$. Fide side BC.
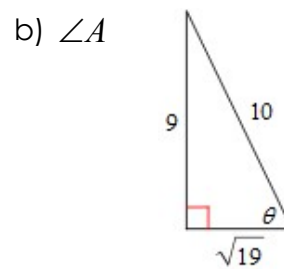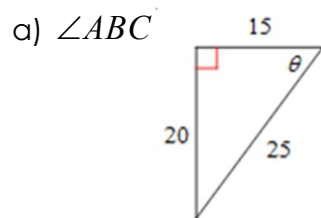
3. Given $\sin 30° = \dfrac{x}{5}$, find x.
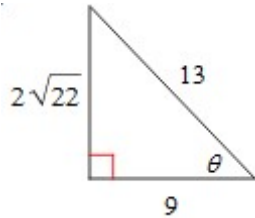
4. Given $\cos \theta = \dfrac{4}{5}$, find $\sin \theta$.

5. This diagram shows an awning over the window of a house. Find the height of the awning, **GH**, to the nearest tenth of a meter.

6. Find the measure of each **angle** indicated. Round your final answer to the nearest degree.
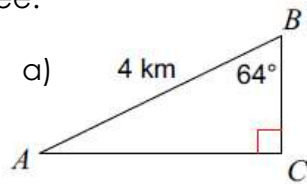
a) $\angle ABC$

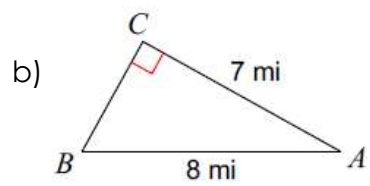b) $\angle A$

c) $\angle DEF$

7. Victor is building a wheelchair ramp to an entranceway that is 3 m above the sidewalk. The ramp will cover a horizontal distance of 50 m. What angle, to the nearest degree, will the ramp make with the ground?
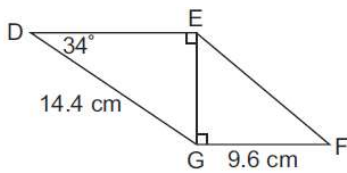
8. As $\sin\theta$ increases, what happens to $\cos\theta$?

9. **Solve** the following right triangles. Give lengths to the nearest tenth and angles to the nearest degree.
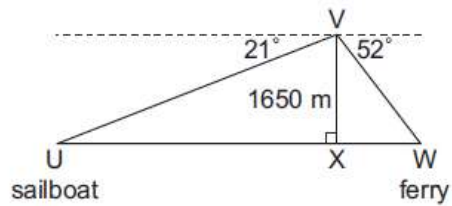
a)

b)


10. Find the measure of ∠F to the nearest degree.

11. From a small plane, **V**, the angle of depression of a sailboat is 21°. The angle of depression of a ferry on the other side of the plane is 52°. The plane is flying at an altitude of 1650 m. How far apart are the boats, to the nearest meter?

12. The diagram shows a falcon, **F**, on a tree, with a squirrel, **S**, and a chipmunk, **C**, on the ground. From the falcon, the angles of depression of the animals are 36° and 47°.
How far apart are the animals on the ground to the nearest tenth of a meter?
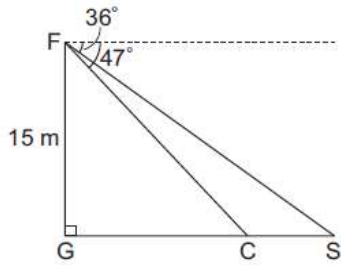
13. Two buildings are 25 m apart. From the top of the shorter building, the angles of elevation and depression of the top and bottom of the taller building are 31° and 48° respectively.
What is the height of the taller building? Give your answer to the nearest meter.