

TRIGONOMETRY 5

1. Find the following: Round your answers to 4 decimal places.

a.  $\sin 16^\circ$

b.  $\tan 80.5^\circ$

c.  $\cos 0.3^\circ$

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\_\_\_\_\_

\_\_\_\_\_

2. Find  $\angle A$  (in degrees) for each of the following. Round your answer to one decimal place.

a.  $\tan \angle A = 1.093$

b.  $\sin \angle A = 0.5555$

c.  $\cos \angle A = 0.065$

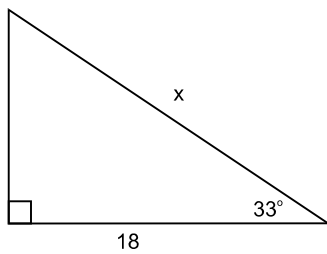
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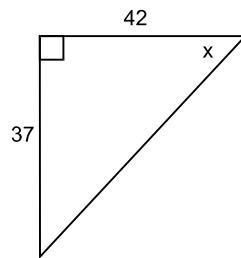
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3. Find  $\angle x$  or side  $x$  in each of the following. Round your answers to one decimal place.

a.



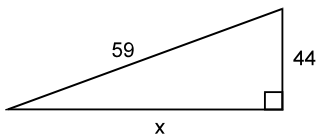
b.



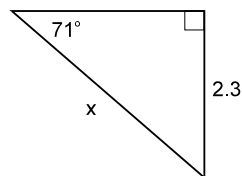
a. \_\_\_\_\_

b. \_\_\_\_\_

c.



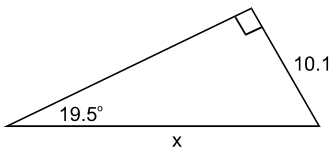
d.



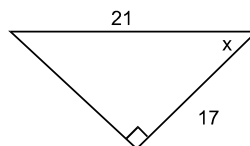
c. \_\_\_\_\_

d. \_\_\_\_\_

e.



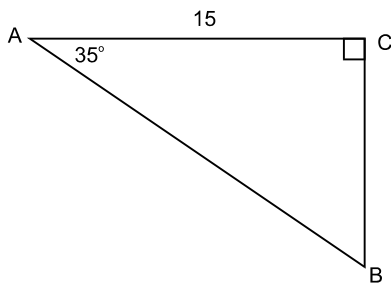
f.



e. \_\_\_\_\_

f. \_\_\_\_\_

4. Solve  $\triangle ABC$ . Round your answers to one decimal place.



$$\overline{AB} = \underline{\hspace{2cm}}$$

$$\overline{BC} = \underline{\hspace{2cm}}$$

$$\angle B = \underline{\hspace{2cm}}$$

5. A 6.5 m ladder makes an angle of  $22^\circ$  with a wall. How high up the wall does the ladder reach? Round your answers to one decimal place.

$$\text{Height of the ladder} = \underline{\hspace{2cm}}$$

6. Bill is in an apartment building 58 m above the ground. In the distance he can see a tall tree. The angle between the building and his line of sight to the base of the tall tree is  $85.5^\circ$ . How far is the tree from the foot of the building?

$$\text{Distance to the tree} = \underline{\hspace{2cm}}$$

## ANSWER KEY

1. a. 0.2756      b. 5.9758      c. 1.0000
2. a.  $47.5^\circ$       b.  $33.7^\circ$       c.  $86.3^\circ$
3. a. 21.5      b.  $41.4^\circ$       c. 39.3      d. 2.4      e. 30.3  
f.  $36^\circ$
4. 18.3, 10.5,  $55^\circ$
5. 6 m
6. 737

Source: Government of BC used with permission.