

**G10. Warming Up Activity 6****Multiple Choice***Identify the choice that best completes the statement or answers the question.*

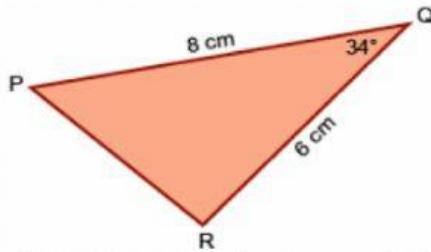
1. Given that  $\cos \theta = \frac{1}{7}$  and  $\theta$  is acute, find the exact value of  $\tan \theta$ .

- a.  $\frac{1}{4\sqrt{3}}$
- b. 7
- c.  $4\sqrt{3}$
- d.  $\frac{4\sqrt{3}}{7}$

2. Given that  $\tan A = \frac{4}{3}$ , where A is in the third quadrant. What is the value of  $\sin A$ ?

- a.  $\frac{4}{5}$
- b.  $-\frac{4}{5}$
- c.  $-\frac{3}{5}$
- d.  $\frac{3}{5}$

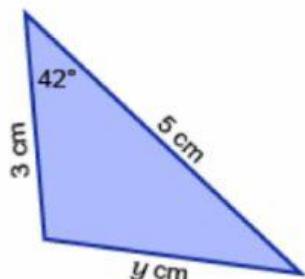
3.



Which of these substitutions is correct for this triangle?

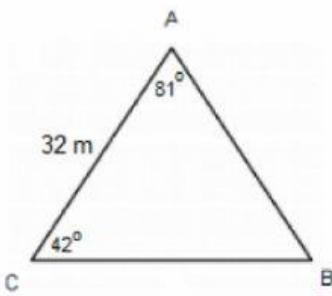
- a.  $PR^2 = 8 + 6 - 2 \times 8^2 \times 6^2 \times \cos 34^\circ$
- b.  $PR^2 = 8 + 6 - 8^2 \times 6^2 \times \cos 34^\circ$
- c.  $PR^2 = 8^2 + 6^2 - 8 \times 6 \times \cos 34^\circ$
- d.  $PR^2 = 8^2 + 6^2 - 2 \times 8 \times 6 \times \cos 34^\circ$

4.

Determine the value of  $y$  correct to one decimal place.

- a. 2.5 cm
- b. 7.3 cm
- c. 4.6 cm
- d. 3.4 cm

5. In  $\triangle ABC$ ,  $A = 81^\circ$ ,  $C = 42^\circ$ , and side  $AC = 32$  m. Find the length of BC. (correct to the nearest meter)



- a. 22 m
- b. 27 m
- c. 38 m
- d. 47 m