

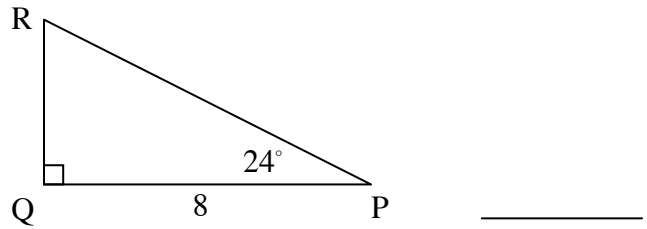
4. Which of the following would give the length of hypotenuse \overline{PR} in the diagram below?

(1) $8 \cos(24^\circ)$

(3) $8 \tan(24^\circ)$

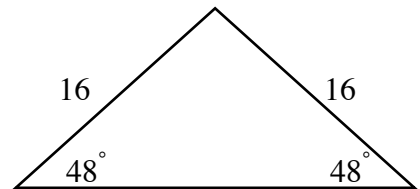
(2) $\frac{8}{\cos(24^\circ)}$

(4) $\frac{8}{\tan(24^\circ)}$

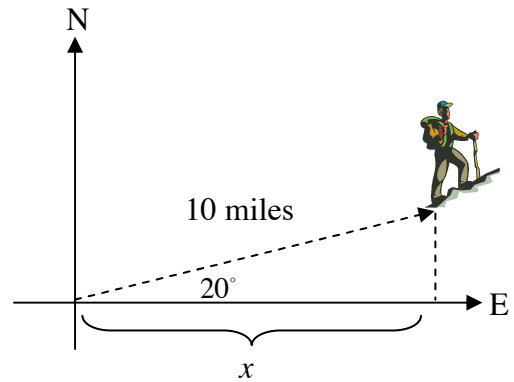


Applications

5. An isosceles triangle has legs of length 16 and base angles that measure 48° . Find the height of the isosceles triangle to the *nearest tenth*. Hint – Create a right triangle by drawing the height.



6. Carlos walked 10 miles at an angle of 20° north of due east. To the nearest tenth of a mile, how far east, x , is Carlos from his starting point?



7. Students are trying to determine the height of the flagpole at Arlington High. They have measured out a horizontal distance of 40 feet from the flagpole and site the top of it at an angle of elevation of 52° . What is the height, h , of the flagpole? Round your answer to the nearest *tenth* of a foot.

