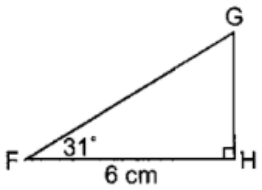
Practice

1. Find the length of the side opposite the given angle to the nearest tenth of a centimetre.

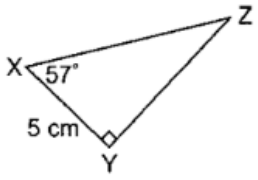
a)



The given angle is ∠F.
The side opposite ∠F is _____.
The side adjacent to ∠F is _____.

GH is about _____ long.

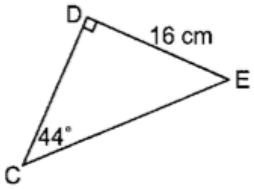
b)



The given angle is ∠_____.
The side opposite ∠_____ is _____.
The side adjacent to ∠_____ is _____.

_____ is about _____ long.

2. Find the length of CD to the nearest tenth of a centimetre.

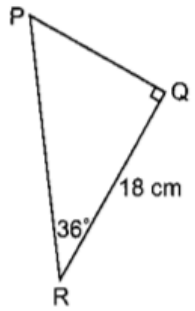


The given angle is ∠C.
The side opposite ∠C is _____.
The side adjacent to ∠C is _____.

CD is about _____ long.

3. Find the length of the indicated side to the nearest tenth of a centimetre.

a) Side PQ

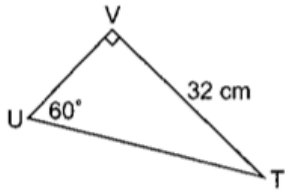


$$\tan R = \frac{\text{opposite}}{\text{adjacent}}$$

tan _____ = _____

PQ is about _____ long.

b) Side UV

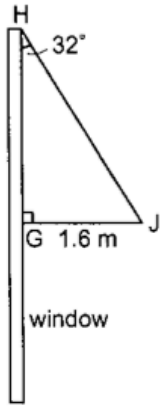


tan _____ = _____

tan _____ = _____

UV is about _____ long.

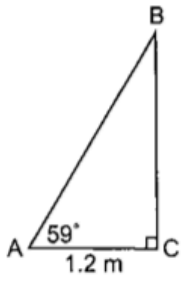
4. This diagram shows an awning over the window of a house. Find the height of the awning, GH, to the nearest tenth of a metre.



tan H = _____

The height of the awning is about _____.

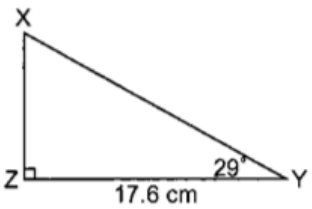
5. A rope supports a tent. The angle between the rope and the level ground is 59°. The rope is attached to the ground 1.2 m from the base of the tent. At what height above the ground is the rope attached to the tent? Give your answer to the nearest tenth of a metre.



The rope is attached to the tent at a height of about _____.

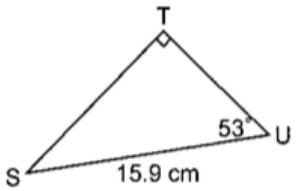
1. Which ratio would you use to find each length?

a) XY



The measure of ∠_____ is known.
YZ is the side _____.
XY is the _____.
So, use the _____ ratio.

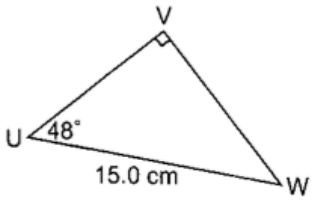
b) ST



The measure of ∠_____ is known.
ST is the side _____.
SU is the _____.
So, use the _____ ratio.

2. Find the length of each indicated side to the nearest tenth of a centimetre.

a) VW



The measure of ∠_____ is known.
The side opposite ∠_____ is _____.
The hypotenuse is _____.
So, use the _____ ratio.

$$\sin \_\_\_\_ = \frac{\text{side } \_\_\_\_\_}{\text{hypotenuse}}$$

$$\sin \_\_\_\_ = \_\_\_\_\_$$

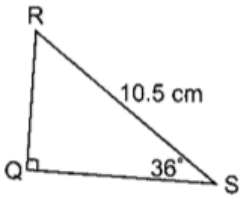
$$\sin \_\_\_\_ = \_\_\_\_\_$$

$$\_\_\_\_ \sin \_\_\_\_ = \_\_\_\_$$

$$VW = \_\_\_\_\_$$

VW is about _____ long.

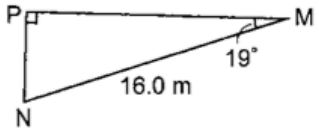
b) QR



The measure of ∠_____ is known.
QR is the _____.
RS is the _____.
So, use the _____ ratio.

QR is about _____ long.

3. Find the length of side PM to the nearest tenth of a metre.

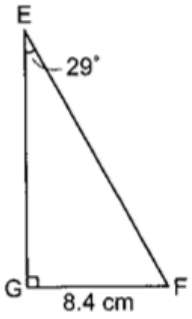


The measure of ∠_____ is known.
PM is the side _____.
MN is the _____.
So, use the _____ ratio.

PM is about _____ long.

4. Find the length of each hypotenuse to the nearest tenth of a centimetre.

a)



The measure of ∠_____ is known.
The side opposite ∠_____ is: _____
The hypotenuse is: _____
So, use the sine ratio.

$$\sin \_\_\_\_ = \frac{\text{opposite}}{\text{hypotenuse}}$$

sin _____ = _____

sin _____ = _____

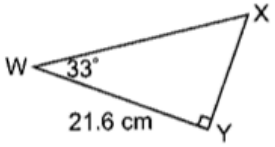
_____ sin _____ = _____

EF = _____

EF = _____

EF is about _____ long.

b)

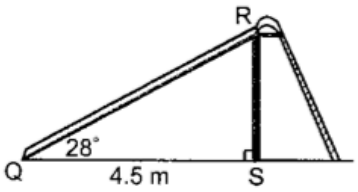


The measure of ∠_____ is known.
WY is the side _____.
WX is the _____.
So, use the _____ ratio.

WX = _____

WX is about _____ long.

5. A straight slide in a playground makes an angle of 28° with the ground. The slide covers a horizontal distance of 4.5 m. How long is the slide? Give your answer to the nearest tenth of a metre.

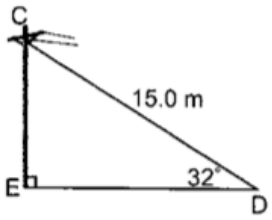


The measure of ∠Q is known.
The side adjacent to ∠Q is: _____
The hypotenuse is: _____
So, use the _____ ratio.

QR = _____

The slide is about _____ long.

6. A 15-m support cable joins the top of a telephone pole to a point on the ground. The cable makes an angle of 32° with the ground. Find the height of the pole to the nearest tenth of a metre.



The height of the pole is about _____.