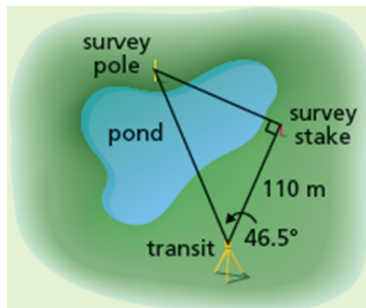


Section 2.5 Using Sine and Cosine to Calculate Lengths

Example 1

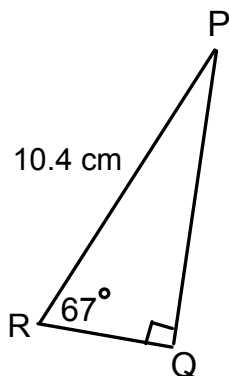
Determine the distance between the transit and the survey pole.



Note: A surveyor can measure an angle precisely using an instrument called a transit. A surveyor can use these measurements and their knowledge of right triangle trigonometry to calculate lengths that cannot be measured directly.

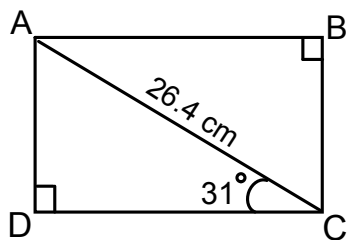
Example 2

Determine the length of PQ to the nearest tenth of a centimeter.



Example 3

Calculate the **area** and **perimeter** of this rectangle to the nearest tenth of a centimeter.

**Example 4**

What are the advantages of using a trigonometric ratio instead of an accurate drawing to solve a measurement problem?

Work Book Questions p.101-102 #3ad, 4ad, 5ab, 6, 7ab, 9, 10, 12a(i)	Extra Practice Questions p.101-102 #3bc, 4bc, 5cd, 8, 11ab, 12a(ii)
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