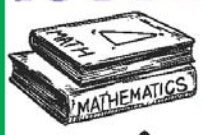
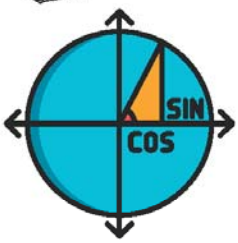
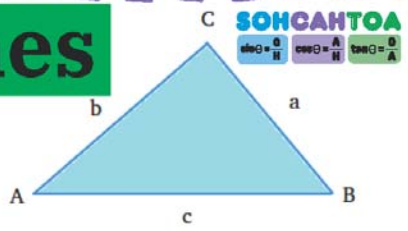
Name : Class :



Law of Cosines



This law states that relation between the lengths of sides of a triangle with respect to the cosine of its angle



$a^2 = b^2 + c^2 - 2bc\cos(A)$

$b^2 = a^2 + c^2 - 2ac\cos(B)$

$c^2 = a^2 + b^2 - 2ab\cos(C)$

Solve each triangle. Round your answers to the nearest tenth.

1) In ABC, a = 14 cm, b = 9 cm, c = 6 cm

2) In XYZ, m X = 138°, y = 15 in, z = 25 in

3) In QRP, q = 12 in, p = 28 in, r = 18 in

4) In QRP, p = 28 km, q = 17 km, r = 15 km

5) In DEF, e = 16 yd, d = 12 yd, f = 17 yd

6) In RPQ, p = 18 mi, m R = 17°, q = 28 mi

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