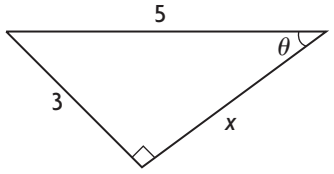
Chapter 5 Review Extra Practice

STUDENT BOOK PAGES 336–339

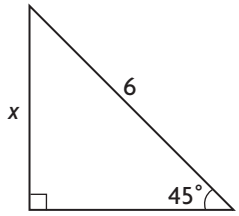
1. For the triangle below:



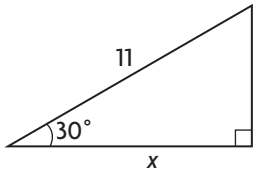
a) Calculate the value of x.
b) State the reciprocal trigonometric ratios for angle θ.
c) Calculate θ to the nearest degree.

2. For each triangle:
i) Calculate the exact value of x.
ii) Calculate the exact area.

a)



b)



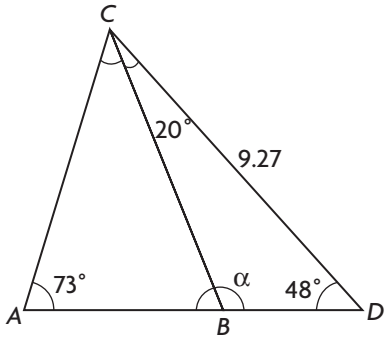
3. State all values of θ that make the equation true if $0° \leq \theta \leq 360°$.
a) $\sin 30° = -\cos\theta$
b) $\tan(-45°) = -\tan\theta$
c) $\cos(-60°) = \sin\theta$

4. Given the following coordinates:
i) Determine the value of r to the nearest tenth.
ii) State the primary trigonometric ratios for angle θ.
iii) State the value θ to the nearest degree if $0° \leq \theta \leq 360°$.
a) $(2, 3)$
b) $(-9, 5)$
c) $(-4, -4)$
d) $(8, -3)$

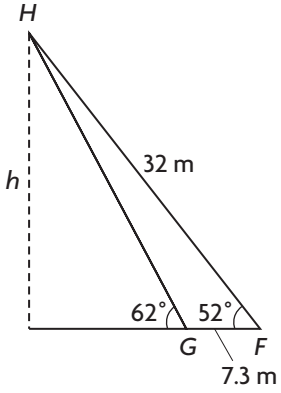
5. Simplify each expression.
a) $\dfrac{\cot\theta \times \sin\theta}{\cos\theta \times \csc\theta}$
b) $\sec\theta \times (\sin\theta + \cos\theta)^2 - 2\sin\theta$

6. Factor each expression.
a) $\tan^2\phi - 36$
b) $\sin^2\phi - 8\sin\theta + 16$

7. The distance between points C and D is 9.27 m. Calculate BC and AD to the nearest hundredth of a metre.



8. The distance between points F and G is 7.3 m. Calculate the height, h, to the nearest tenth of a metre.



9. Using the three-dimensional diagram below, calculate the distance, d, and height, h, to the nearest metre.