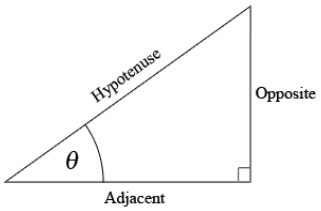
Unit 3 Exam Review Lesson

Unit 3 Exam Review

Chapter 7: Trig of Right Triangles

Chapter 8: Trig of Acute Triangles

Right Triangles



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

$\cos\theta = \frac{\text{adjacent}}{\text{hypotenuse}}$

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

Acute Triangles

Sine Law

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

and

COSINE LAW

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc} \quad \text{or} \quad a^2 = b^2 + c^2 - 2bc\cos A$$

$$\cos B = \frac{c^2 + a^2 - b^2}{2ca} \quad \text{or} \quad b^2 = c^2 + a^2 - 2ca\cos B$$

$$\cos C = \frac{a^2 + b^2 - c^2}{2ab} \quad \text{or} \quad c^2 = a^2 + b^2 - 2ab\cos C$$

When can we use SOHCAHTOA?

ONLY WITH RIGHT ANGLE TRIANGLES!!!!!!!!!!!!

When can we use the Sine Law

1) an unknown side if two angles and a side are known

2) an unknown angle if two sides and the angle opposite one of the known sides are known

When can we use the cosine law?

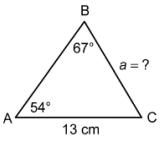
1) to find a missing side of an acute triangle if the other two sides and their contained angle are known

2) find an angle if you know three side lengths of an acute triangle

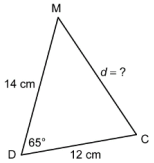
Unit 3 Exam Review Lesson

Determine whether you are going to use Sine Law or Cosine Law:

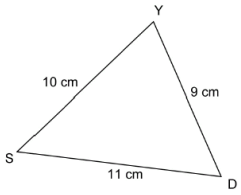
Find a, to the nearest tenth of a centimetre.



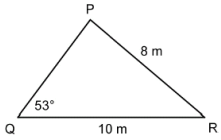
Find d, to the nearest tenth of a centimetre.



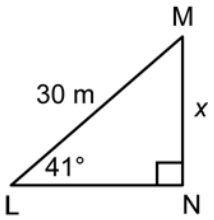
Find the measure of ∠S, to the nearest degree.



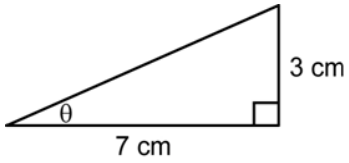
Find the measure of ∠P, to the nearest degree.



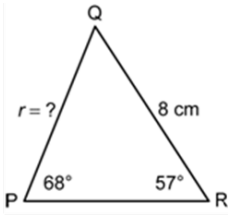
Find the value of 'x'



Find the value of the indicated angle

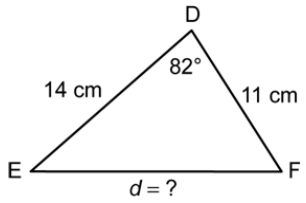


Find the value of 'r'



Unit 3 Exam Review Lesson

Find the value of 'd'



Find the value of the indicated angle