

Unit 1 – Final Exam Review

Trigonometry

****YOUR CALCULATOR NEEDS TO BE IN DEGREE MODE****

Trigonometric Ratios

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

$$\theta = \sin^{-1} \left(\frac{O}{H} \right)$$

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

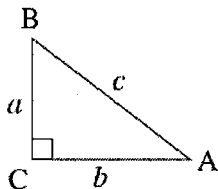
$$\theta = \cos^{-1} \left(\frac{A}{H} \right)$$

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

$$\theta = \tan^{-1} \left(\frac{O}{A} \right)$$

Pythagorean Theorem

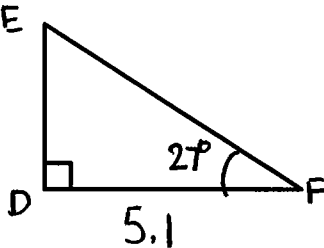
$$a^2 + b^2 = c^2$$



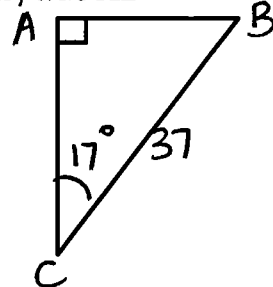
A. Determine the length of the side

Example: Determine the length of the side to the nearest tenth.

a) side d



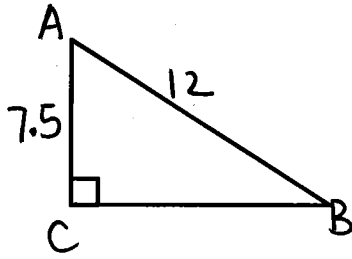
b) side AB



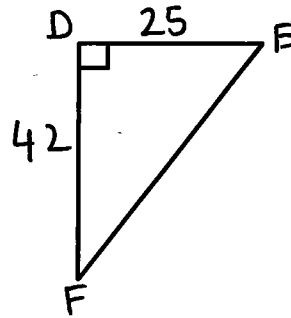
B. Determine the measure of the angle

Example: Determine the measure of each angle indicated to the nearest degree.

a) $\angle ABC$



b) $\angle DEF$



C. Solve the triangle

- Determine the length of all sides
- Determine the measure of all angles

Example: Solve the triangle.

