Name: _____   Date: _____

# Prerequisite Skills

Trigonometric Ratios

1. Find the sine, cosine, and tangent ratios for
∠V and ∠W. Express the ratios as fractions in
lowest terms.

a)

b)
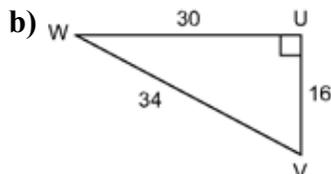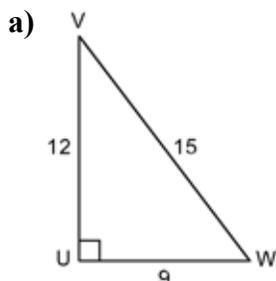
2. Use your calculator to evaluate each
trigonometric ratio. Round to three decimal
places.
a) sin 23°   **b)** sin 8.2°   **c)** cos 60°
d) cos 87°   **e)** tan 72.5°   **f)** tan 45°

3. Determine the measure of each angle to the
nearest degree, where necessary.
a) sin A = 0.7498   **b)** sin A = 0.5
c) cos A = 0.6002   **d)** cos A = 0.3856
e) tan A = 1.7321   **f)** tan A = 9.6540

Pythagorean Theorem

4. Determine the measure of each unknown side.
Round answers to the nearest tenth of a unit.
a)

b)
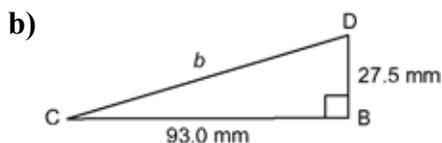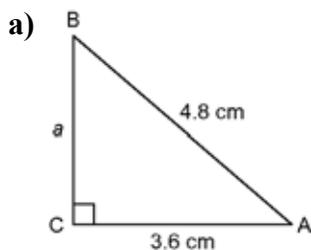
Geometry

5. Find the measure of each unknown angle to
the nearest degree.
a)

b)
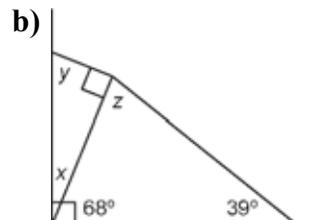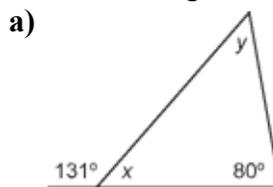
6. Two angles are complementary.
a) If one angle is double the measure of the
other, find the measures of the two angles.
b) If one angle is 20° greater than the measure
of the other, find the measures of the two
angles.

7. Four angles are supplementary. Find the
measures of the four angles to the nearest
tenth of a degree.

8. a) Add the labels p, q, and R
to the incomplete diagram.
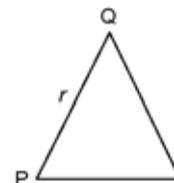
b) Find the value of x if PQ = QR,
∠P = x + 30, and ∠Q = x – 15.

Rearrange Formulas

9. Rearrange each formula to solve for a.
a) $ac = \dfrac{b}{c}$

b) $A = \dfrac{1}{2}(a+b)h$

c) $4 = 2a^2b - b^2$
d) $0 = b^2 + c^2 - a^2 - 2bc(\cos A)$
e) $\dfrac{b+c}{c} = \dfrac{b}{a}$