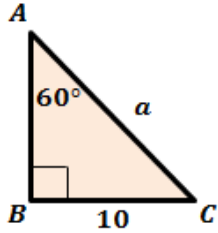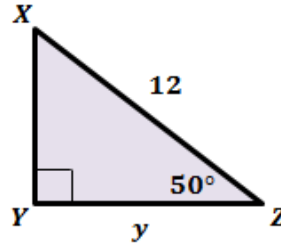Name: _____ Period: _____ Date: _____

Right Triangle Trigonometry Bell Work

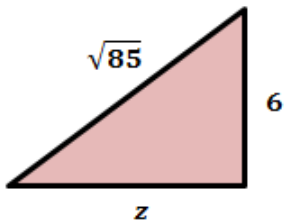**Find the unknown variable in each triangle. Round the answer to the nearest tenth.**

1.

2.

3.

4.

𝑓⁽ˣ⁾ **PreCalculusCoach.com**
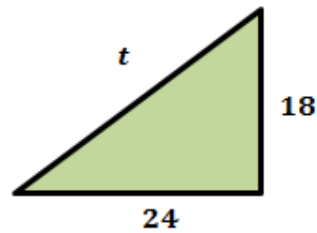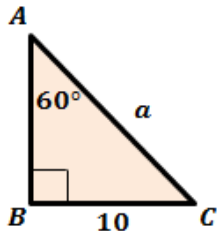
Right Triangle Trigonometry Bell Work

<mark>Answers</mark>

Find the unknown variable in each triangle. Round the answer to the nearest tenth.
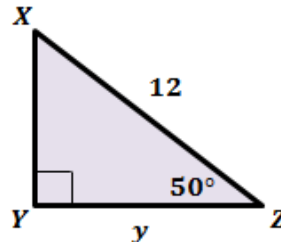
1.

A
$60°$ a
B 10 C

$$\sin(A) = \frac{opposite}{hypotenuse}$$

$$\sin(60°) = \frac{10}{a}$$

$$a = \frac{10}{\sin(60°)}$$

<mark>$a = 11.5$</mark>

2.

X
12
$50°$
Y y Z

$$\cos(Z) = \frac{adjacent}{hypotenuse}$$

$$\cos(50°) = \frac{y}{12}$$

$$y = 12 \times \cos(50°)$$

<mark>$y = 7.7$</mark>

3.

$\sqrt{85}$
6
z
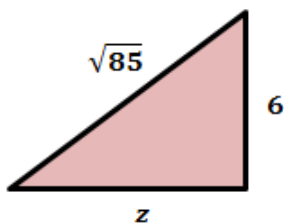
By Pythagorean theorem,
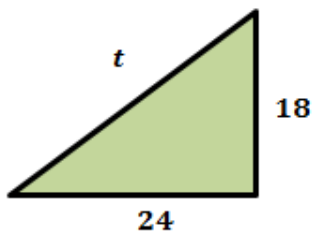
$$(\sqrt{85})^2 = z^2 + 6^2$$

$$85 - 36 = z^2$$

$$z^2 = 49$$

<mark>$z = 7$</mark>

4.

t
18
24

By Pythagorean theorem,

$$t^2 = 24^2 + 18^2$$

$$t^2 = 576 + 324$$

$$t^2 = 900$$

<mark>$t = 30$</mark>

ƒ⁽ˣ⁾ PreCalculusCoach.com