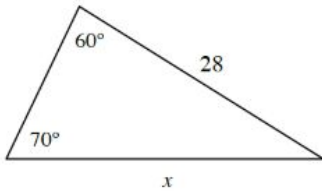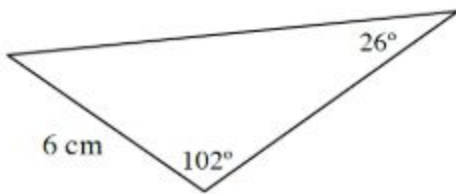# Triangle Practice

1) Solve for x and calculate the area of each triangle below.

2) Solve the triangle completely, meaning find all of the missing information including the area.
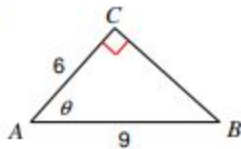

3)   Given $\triangle DOG$, where $\angle D = 64°$, $\angle O = 38°$, and $DO = 8$ inches.
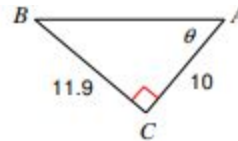
        a. Draw a diagram that is roughly to scale.

        b. Solve the triangle completely.

        c. Calculate the area of $\triangle DOG$.

4) Solve for the indicated angle θ or side x. Round solutions to the nearest 10th.

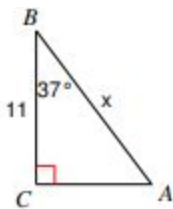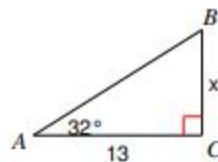   a.   b.

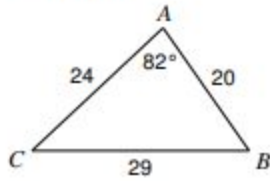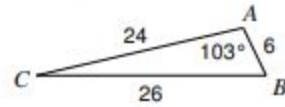   c.   d.

5) Find the measure of $\angle C$. Round solutions to the nearest 10th.

a.

b.

6) Solve the following equations. When necessary round solution to nearest 10th.
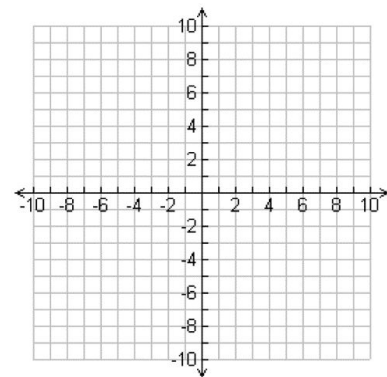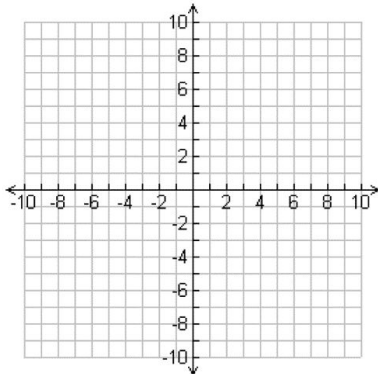
a. $\log_3(x) - \log_3(5) = 2$

b. $2(1.5)^x - 3 = 33$

7) Solve for c: $c^4 - 11c^2 - 80 = 0$

8) Graph each function below.

a. $f(x) = -2(3)^x - 7$

b. $g(x) = \log_6(x - 2)$

9) Write each of the following rational expressions as a simplified single fraction.

a. $\dfrac{x+y}{xy} \cdot \dfrac{2x^2y}{x^2 - y^2}$

b. $\dfrac{3x}{x+2} + \dfrac{2x}{x-2}$