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## 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 $\triangle D O G$, where $\angle D=64^{\circ}, \angle O=38^{\circ}$, and $D O=8$ inches.
a. Draw a diagram that is roughly to scale.
b. Solve the triangle completely.
c. Calculate the area of $\triangle D O G$.
4) Solve for the indicated angle $\boldsymbol{\theta}$ or side $\boldsymbol{x}$. Round solutions to the nearest 10th.
a.

b.

C.

d.

5) Find the measure of $\angle C$. Round solutions to the nearest 10 th.
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 $c: c^{4}-11 c^{2}-80=0$
8) Graph each function below.
a. $f(x)=-2(3)^{x}-7$
b. $g(x)=\log _{6}(x-2)$


9) Let $f(x)=\left\{\begin{array}{llr}x^{2} & \text { for }-2 \leq x<1 \\ 2-x & \text { for } & 1 \leq x<4\end{array}\right.$
a. Graph $f(x)$
b. Is $\mathrm{f}(\mathrm{x})$ continuous? Explain.

