Do Now!

A jet takes 5 3/4 hr to fly 2,475 mi from New York City to Los Angeles. About how many hours will a jet flying at the same average rate take to fly 5,452 mi from Los Angeles to Tokyo?

$$5.75 \overline{)\,2475.}$$

$$575 \overline{)\,2475.00.00} = 430.43 \text{ mph}$$

2300
1750
−1725
2500
2300
2000
1725

$$430.5 \overline{)\,5452.0.0} = 12.6$$

−4305
11470
8610
28600

Chapter 5-5 Using Similar Figures:

SWBAT: use proportions to find missing lengths in similar figures

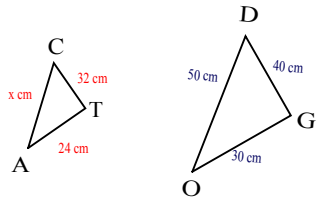
Vocabulary:

Polygon is a closed plane figure with 3 or more sides for line segments.

Similar Polygons -

* if corresponding angles have the same measure.
* the lengths of the corresponding(matching) sides form equivalent ratios.

△ACT and △ODG are similar.



Find the value of x

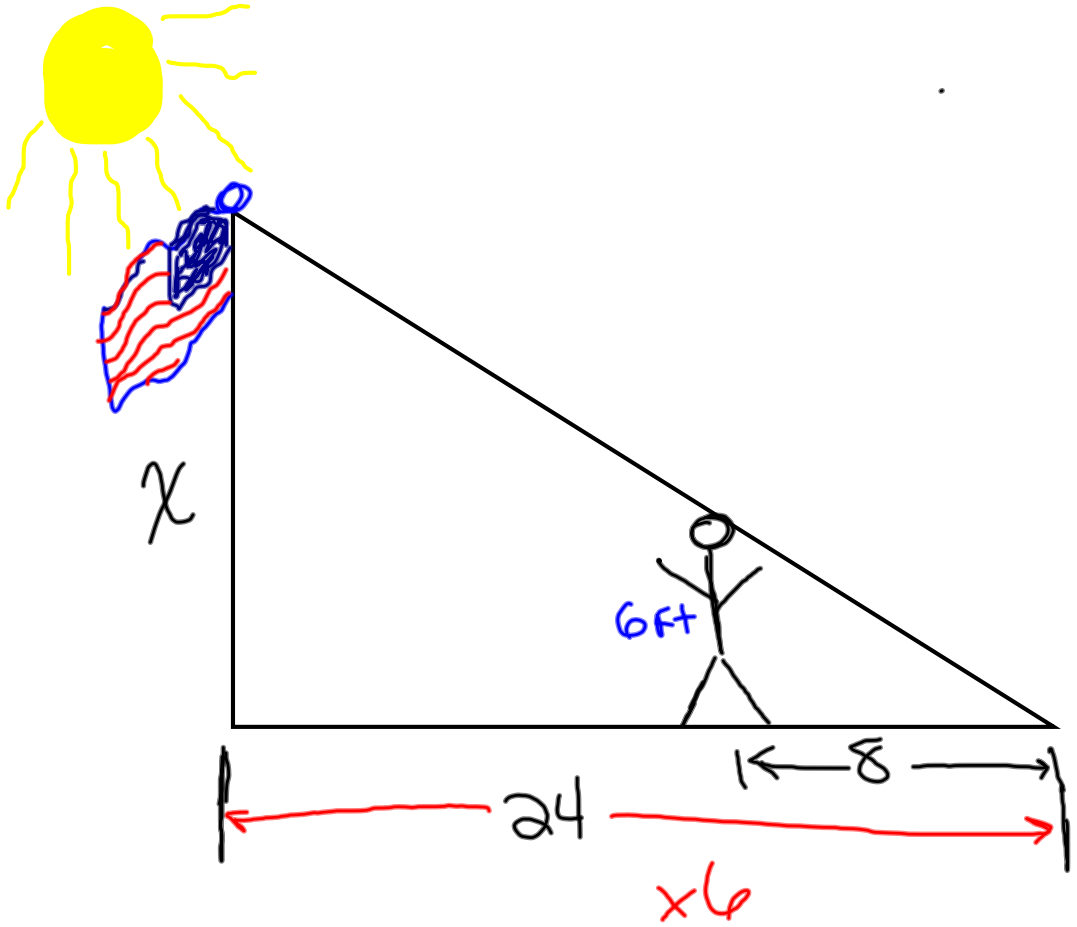
$\frac{\overline{AC}}{\overline{OD}} = \frac{\overline{AT}}{\overline{OG}}$ ← Write a proportion using corresponding sides

$\frac{x}{50} = \frac{24}{30}$ ← Substitute Values for Segments

$\frac{x}{50} = \frac{4}{5}$ ← Write 24/30 in simplest form divide by GCF 6

$\frac{x}{50} = \frac{4}{5}$ ×10 ×10

Mental Math $x = 40$



$$\frac{x}{24} \overset{\times 3}{=} \frac{6}{8} \qquad x = 18$$

$\times 3$