

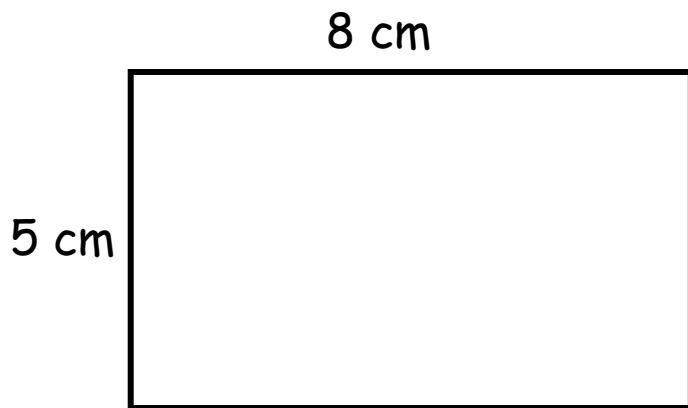
TAKS Objective 6
TEK 8.6A
Tutorial
(Grades 9 and 10)

...generate similar figures using dilations including enlargements and reductions.

Rectangle ABCD is dilated by a scale factor of $\frac{2}{3}$. Is the new figure smaller or larger? How do you know?

The new figure will be smaller because the scale factor is less than 1.

The rectangle is dilated by a scale factor of $\frac{3}{2}$. What will be the dimensions of the new figure?



$$\frac{3}{2} = \frac{1}{\frac{2}{3}}$$

$$\frac{3(8)}{2} = 12$$

$$\frac{3}{2} = \frac{1}{\frac{2}{3}}$$

$$\frac{3(5)}{2} = 7.5$$

12 cm x 7.5 cm

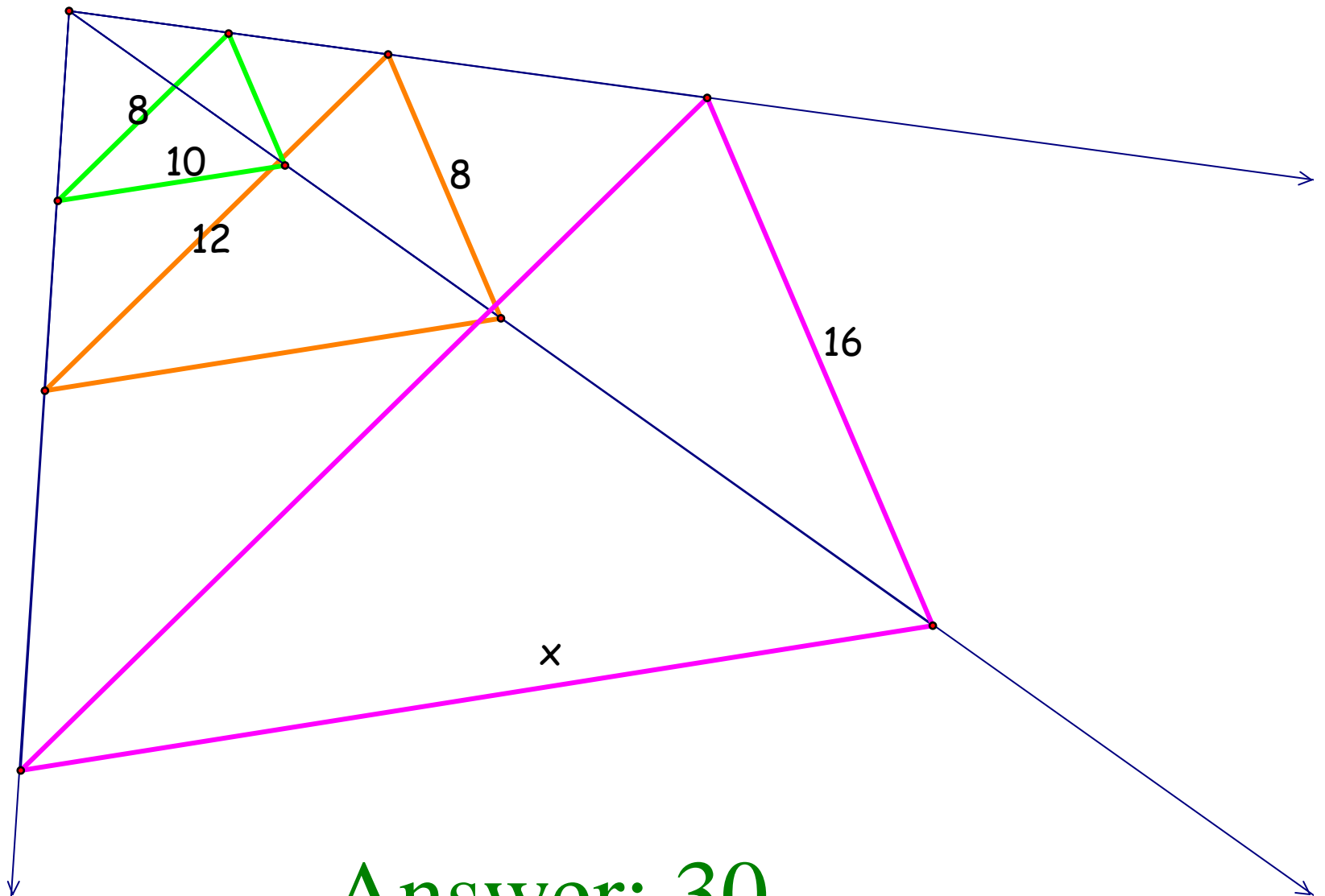
A triangle has coordinates $(-3, 5)$, $(2, -3)$, and $(4, 2)$. If the triangle is dilated by a scale factor of $\frac{2}{3}$ about the center of dilation which is the origin, what will be the coordinates of the new triangle?

Hint: When the center of dilation is the origin, multiply the coordinates by the scale factor.

Answer:

$(-2, \frac{10}{3})$, $(\frac{4}{3}, -2)$, and $(\frac{8}{3}, \frac{4}{3})$

The triangles below have been dilated.
What is the value of x ?



Answer: 30