December 5, 2019

1. You want to draw a scale drawing of your calculator. The calculator is 8in long and you want to draw the calculator five times bigger. How big should you draw the calculator?

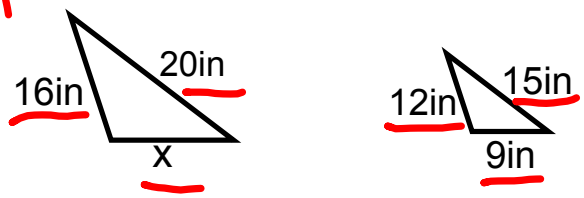
$8 \cdot 5 = 40$ in

2. You now want to take the same calculator, but now you want to make it 3/4 of the size. How big should you draw the calculator?

$\frac{3}{4} \cdot \frac{8}{1} = 6$ in

3. The two shapes are similar.

Find the missing side length



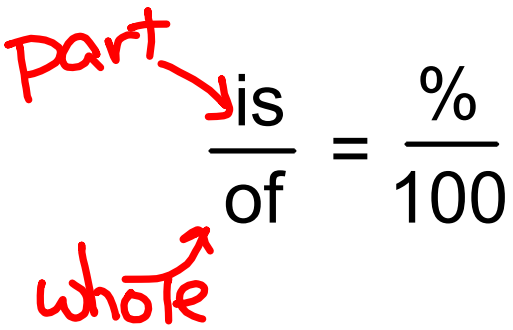
$\frac{20}{x} = \frac{15}{9}$

$\frac{15x}{15} = \frac{180}{15}$

$x = 12$ in

Percent Proportions

How to solve percent problems using proportions



What is 20% of 34?

$$\frac{\text{is}}{\text{of}} = \frac{\%}{100}$$

$$\frac{x}{34} = \frac{20}{100}$$

$$\frac{10x}{10} = \frac{68}{10}$$

$$x = 6.8$$

17 is 43% of what number?

↑ ?

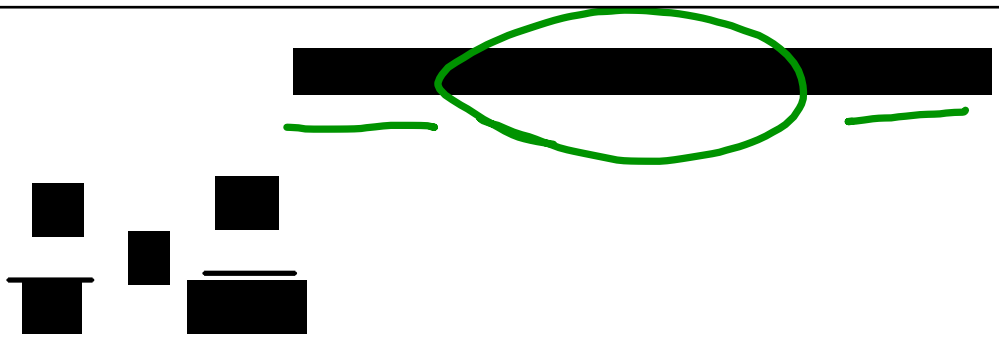
$$\frac{\text{is}}{\text{of}} = \frac{\%}{100}$$

$$\frac{17}{x} = \frac{43}{100}$$

$$\frac{43x}{43} = \frac{1700}{43}$$

$$x = 39.534883720$$

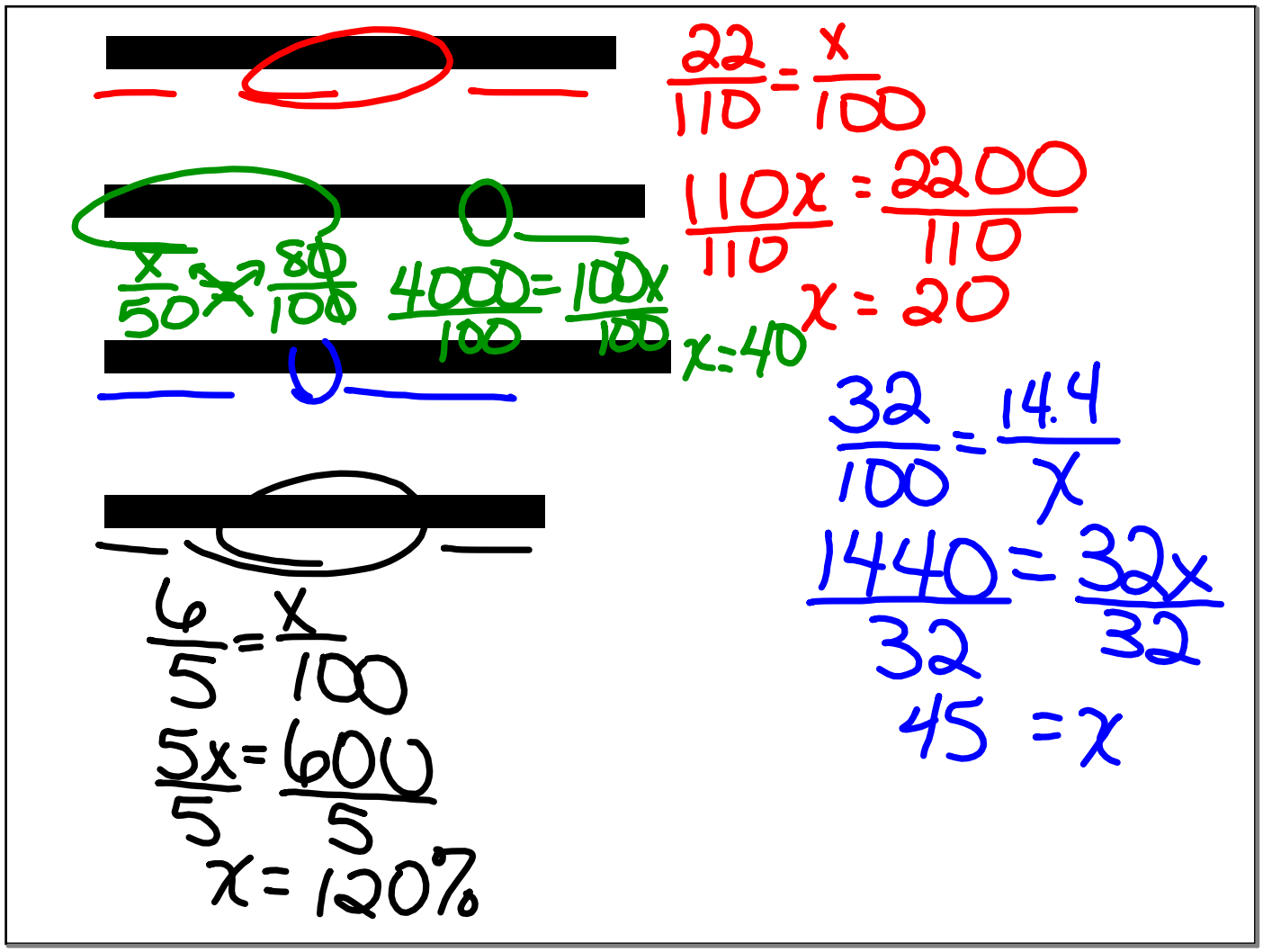
$$x = 39.53$$



$$\frac{35}{89} = \frac{x}{100}$$

$$\frac{3500}{89} : \frac{89x}{89}$$

$$39.33 = x$$


22/110 = x/100
110x/110 = 2200/110
x = 20
x/50 × 80/100
4000/100 = 100x/100
x = 40
32/100 = 14.4/x
1440/32 = 32x/32
45 = x
6/5 = x/100
5x/5 = 600/5
x = 120%

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