W-A1 Algebra 1 2/16

1.) $\frac{12}{28} = \frac{x}{42}$

$28x = (12)(42)$

$\frac{28x}{28} = \frac{504}{28}$

$x = 18$

2.) $\frac{x+2}{8} = \frac{2x+10}{12}$

$12(x+2) = 8(2x+10)$

$12x + 24 = 16x + 80$

$-16x \quad -16x$

$-4x + 24 = 80$

$-24 \quad -24$

$\frac{-4x}{-4} = \frac{56}{-4}$

$x = -14$

3.) Nate ate 76 donuts over a 4 day period. If he maintained this exceedingly healthy and restrained diet regiment, how long would it take for him to eat 3,000 donuts?

(You can support the "I love you, 3000" initiative by going to www.pleasedontdieNate.com)

Donuts

Days

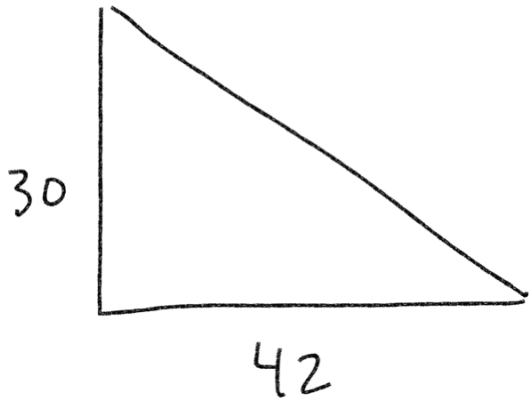
$\frac{76}{4} = \frac{3000}{x}$

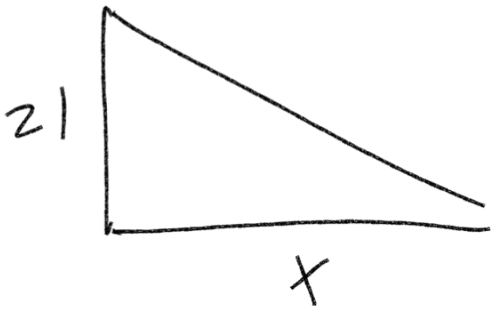
$76x = 12000$

$\frac{76x}{76} = \frac{12000}{76}$

$x = 158$ days

1.)





H / B

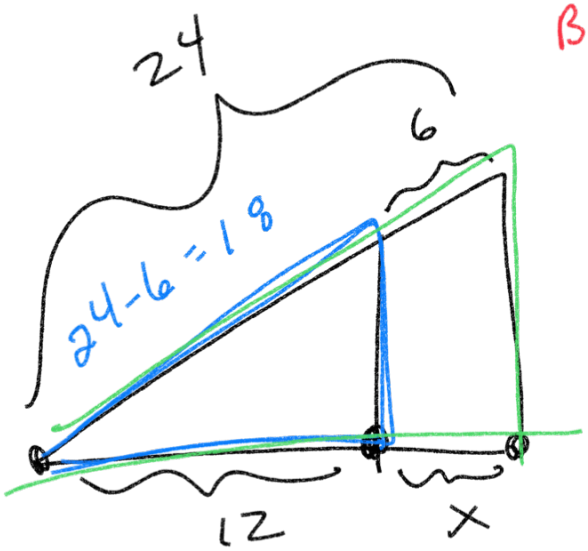
$\frac{30}{42} = \frac{21}{x}$

$30x = (42)(21)$

$\frac{30x}{30} = \frac{882}{30}$

$x = 29.4$

2.)



base → $\frac{12}{18} = \frac{12+x}{24}$

$(12)(24) = 18(12+x)$

$288 = 216 + 18x$

$-216 \quad -216$

$72 = 18x$

$\frac{72}{18} = \frac{18x}{18}$

$x = 4$

what ↓ x | is ↓ = | 40% ↓ 0.4 | of ↓ * | 120 ↓ 120 ?

$x = 48$

60% ↓ 0.6 of ↓ * what number ↓ x is ↓ = 84

$\frac{0.6x}{0.6} = \frac{84}{0.6} = 140$

$84 \div \frac{3}{5}$

$\frac{84}{1} \downarrow$

$\frac{84}{1} * \frac{5}{3}$

$0.6x = 84$

$6x = 840$

28 ↓ 28 is ↓ = what percent ↓ x % of ↓ * 80

$\frac{80x}{80} = \frac{28}{80}$

$x = \frac{28}{80} = 0.35$

$0.35 * 100\% = 35\%$

1.) 70% of 30 is what number?

↓ ↓ ↓ ↓ ↓

0.70 * 30 = x

$x = 21$

2.) 45 is what percent of 240?

↓ ↓ % ↓ ↓

45 = x * 240

$\frac{45}{240} = \frac{240x}{240}$ $x = \frac{45}{240} = .1875 * 100\%$

18.75%

3.) 84% of what number is 28?

↓ ↓ ↓ ↓

0.84 * x = 28

$\frac{0.84x}{0.84} = \frac{28}{0.84}$ $x = 32.\overline{3}$