Use a proportion to solve each problem.

a.) 57 is 60% of what number?

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

$\frac{57}{y} = \frac{60}{100}$ $\quad \frac{60y}{60} = \frac{5700}{60}$ $\quad y = 95$

b.) 25% of 42 is what number?

$\frac{x}{42} = \frac{25}{100}$ $\quad \frac{100x}{100} = \frac{1050}{100}$ $\quad x = 10.5$

Use a proportion to solve each problem.

c.) Twenty-eight is 35% of what number?

$\frac{28}{v} = \frac{35}{100}$ $\quad \frac{2800}{35} = \frac{35v}{35}$ $\quad v = 80$

d.) 13 is 5% of what number?

$\frac{13}{w} = \frac{5}{100}$ $\quad \frac{5w}{5} = \frac{1300}{5}$ $\quad w = 260$

Use a proportion to solve each problem.

e.) 9% of 2000 is what number?

$\frac{t}{2000} = \frac{9}{100}$ $\quad \frac{100t}{100} = \frac{18000}{100}$ $\quad t = 180$

f.) 36 is what percent of 24?

$\frac{36}{24} = \frac{c}{100}$ $\quad \frac{3600}{24} = \frac{24c}{24}$ $\quad c = 150\%$

Find each discount price.

g.) $35 lamp at 20% off

Method #1: $35 \times 0.20 = 7$

$35 - 7 = \$28$

Method #2:

$100 - 20 = 80\%$

$35 \times 0.80 = \$28$

h.) $395.95 couch at 35% off

Method #1:

$395.95 \times 0.35 = 138.5825$

$395.95 - 138.5825 = 257.3675$

$\$257.37$

Method #2

$100 - 35 = 65\%$

$395.95 \times 0.65 = 257.3675$

$\$257.37$

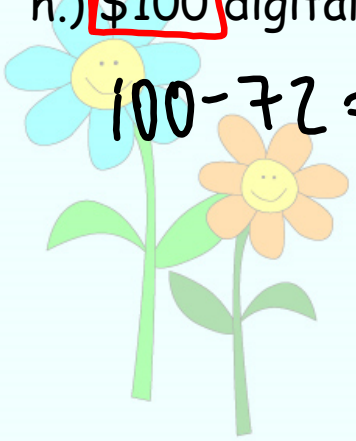
Find each percent of change.

g.) $120 turntable increased to $150

$150 - 120 = 30$

$\frac{30}{120} = 0.25 = 25\%$

h.) $100 digital watch decreased to $72



$100 - 72 = 28$

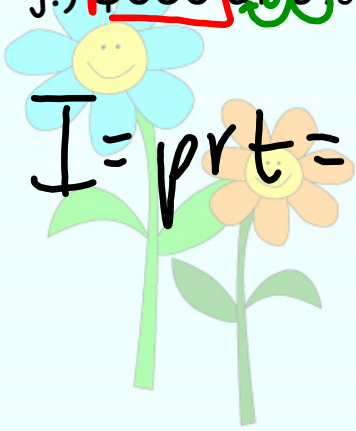
$\frac{28}{100} = 0.28 = 28\%$

Find each simple interest.

i.) $160 at 5.5% for 1.25 years

$I = prt = (160)(0.055)(1.25) = \$11$

j.) $350 at 6% for 6 months $\frac{6}{12} = 0.5$



$I = prt = (350)(0.06)(0.5) = \$10.50$