Warm up:

1) 50.8% of the US population is female. If there are 165,465,342 women in the country, what is the total population?

$$0.508x = 165465342$$
$$\frac{0.508}{0.508} = \frac{165465342}{0.508}$$
$$x = 325719177.2 \quad \boxed{325,719,177 \text{ people}}$$

2) There are 347 students in the school and 82 of them have an Xbox. What percent of students own an Xbox?

$$\frac{p \cdot 347}{347} = \frac{82}{347}$$

$$p = 0.236311239$$

$$\boxed{23.63\%}$$

A shirt is regularly $45. The store is running a
30% off sale. What is the sale price?

$0.30(45)$

13.5

$45 - 13.5$

$\boxed{\$31.50}$

$100\% - 30\% = 70\%$

$0.7(45)$

$\boxed{\$31.50}$

Sarah bought stock in a company. Since then the price has gone up 10%. The new price is what percentage of the original price?
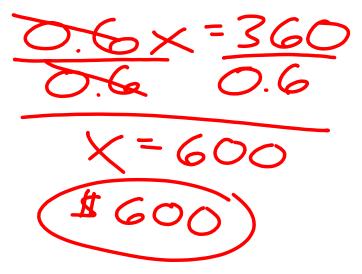
110%

Percent Increase/Decrease

- starting with 100%

- always finding the percent of the ORIGINAL number

Paul invested $3000 in a mutual fund. Since then, it has gone up by 60%. How much money does Paul have now?

160%

1.6(3000)

$4800

Best Buy is having a 40% off sale on TVs. If you see a TV that has a sale price of $360, what was the original price?

$$\frac{0.6x}{0.6} = \frac{360}{0.6}$$

$$x = 600$$

$$\$600$$

1) Last year, the ski club had 42 members. This year, it has 48 members. What was the percent change. Round your final answer to the nearest hundredth.

2) Jefferson High School has 414 students. The enrollment has increased by 15% since last year. How many students were enrolled at the school last year?

3) A local store made $350,000 in profit this year. 10 years ago, they made $180,000. What was the percent change?

4) Kelly invested $4500 in a retirement account. Since she invested her money, it has gone up by 30%. How much money is currently in her account?

5) A computer is on sale for $450 as part of a 40% off sale. What is the original price of the computer?

1) Last year, the ski club has 42 members. This year, it has 48 members. What was the percent change. Round your final answer to the nearest hundredth. $48-42=6$

$$\frac{6}{42} = 0.142857143$$
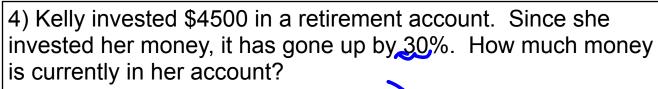
$\boxed{14.29\%}$

$p \cdot 42 = 6$

2) Jefferson High School has 414 students. The enrollment has increased by 15% since last year. How many students were enrolled at the school last year?

$$\frac{1.15x}{1.15} = \frac{414}{1.15}$$

$$x = 360$$

360 students

3) A local store made $350,000 in profit this year. 10 years ago, they made $180,000. What was the percent change?

$$350000 - 180000 = 170000$$

$$\frac{170000}{180000} = 0.94444\overline{4}$$

94.44%

4) Kelly invested $4500 in a retirement account. Since she invested her money, it has gone up by 30%. How much money is currently in her account?

$1.3(4500)$

$\$5850$

5) A computer is on sale for $450 as part of a 40% off sale. What is the original price of the computer?

$$\frac{0.6x}{0.6} = \frac{450}{0.6}$$

$$x = 750$$

$$\# 750$$