

HW: Worksheet/7-13 odd, 16-19, 28, 31, 32

**Warm up:**

1) In a school survey, 248 students, or 32% of the sample, said they worked part time during the summer. How many students were surveyed?

$$0.32x = 248$$

$$\frac{0.32x}{0.32} = \frac{248}{0.32}$$

$$x = 775$$

$$\frac{32}{100} = \frac{248}{x}$$

775 people

2) Kevin sold a house for \$570,000. His fee, or sales commission, for selling the house was \$26,790. What percent of the price of the house was Kevin's commission?

$$\frac{p(570000)}{570000} = \frac{26790}{570000}$$

$$p = 0.047$$

$$4.7\%$$

$$\frac{p}{100} = \frac{26790}{570000}$$

## HW Solutions

$$\textcircled{2} \quad \frac{p(76400)}{76400} = \frac{19320}{76400}$$

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$$p = 0.252879581$$

$$\textcircled{25.29\%}$$

$$\textcircled{4} \quad \frac{p(1295)}{1295} = \frac{714}{1295}$$

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$$p \approx 0.55135135\dots$$

$\textcircled{55.14\%}$

$$\textcircled{c} \quad \frac{0.65x}{0.65} = \frac{475}{0.65}$$

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$$x = 730.7692308$$
$$\textcircled{\$730.77}$$

## Percent Change

Yesterday a stock price was \$50. Today it is \$60. Find the percent of change.

$$\frac{10}{50}$$

$$\frac{p \cdot 50 = 10}{50 \quad 50}$$

$$p = 0.2$$

20% increase

$$\%change = \frac{\text{difference}}{\text{original}}$$

Let's look up the stock price of a company...

In 1981, gas was \$1.30/gal. In 2007, it was \$2.85/gal. What was the percent change?

$$\frac{\text{difference}}{\text{original}}$$

$$\frac{2.85 - 1.30}{1.30} = \frac{1.55}{1.30} = 1.192307692$$

$$119.23\% \uparrow$$

You bought a Blu-Ray player for \$280. Now, it is on sale for \$220. Find the percent change.

$$\frac{280 - 220}{280} = \frac{60}{280}$$

$$0.214285714$$

$$21.43\%$$



1) In 1995, the cost of a laser printer was \$1,299. In 2002, the price of the same type was \$499.

2) The amount won in harness racing in 1991 was \$1.238 million. In 1992, the amount was \$1.38 million.

3) In 1980, there were about 3 million people in Chicago. In 1990, there were 2.8 million.

4) Caryn was 58in. tall last year. She is now 61in

5) Last month, Dave weighed 175 lbs. This month, he weighs 164 lbs.

6) Between the ages of 1 and 10 a life insurance policy costs \$3.84/mo. At age 11, it increases to \$6.12

1) In 1995, the cost of a laser printer was \$1,299. In 2002, the price of the same type was \$499.

$$\frac{1299-499}{1299} = \frac{800}{1299}$$

0.615858353

61.59%

2) The amount won in harness racing in 1991 was \$1.238 million. In 1992, the amount was \$1.38 million.

$$\frac{1.38 - 1.238}{1.238} = \frac{0.142}{1.238}$$

$$0.114701131$$

$$11.47\%$$

3) In 1980, there were about 3 million people in Chicago. In 1990, there were 2.8 million.

$$\frac{3 - 2.8}{3} = \frac{0.2}{3} = 0.06666\bar{6}$$

$$6.67\%$$

4) Caryn was 58in. tall last year. She is now 61in

$$\frac{61-58}{58} = \frac{3}{58} = 0.051724138$$

5.17%

5) Last month, Dave weighed 175 lbs. This month, he weighs 164 lbs.

$$\frac{175-164}{175} = \frac{11}{175}$$

$$0.062857143$$

$$6.29\%$$

6) Between the ages of 1 and 10 a life insurance policy costs \$3.84/mo. At age 11, it increases to \$6.12

$$\frac{6.12 - 3.84}{3.84}$$

