

Changing Percents to Decimals

To calculate with a percent, first change the percent to a decimal.

50% means 50 out of 100 or $\frac{50}{100}$. So to change 50% to a decimal, divide 50 by 100.

As you know, \$5 is the same as \$5.00. When a number appears without a decimal point, the decimal point is understood to be to the right of the number.

To divide by 100, move the decimal point two places to the left.

$$50\% = 0.50$$

$$100\% = 1$$

$$5\% = 0.05$$

Sometimes, you need to insert a "0" to move the decimal point two places left.

$$1.5\% = 0.015$$
 Sometimes, percents already have a decimal point.

$$250\% = 2.5$$
 Sometimes, percents are more than 100%.

1. Change each percent to a decimal.

- | | | | |
|--------|--------|--------|--------|
| a) 85% | b) 32% | c) 12% | d) 93% |
| e) 98% | f) 49% | g) 18% | h) 66% |

2. Change each percent to a decimal.

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|-------|-------|-------|-------|
| a) 3% | b) 2% | c) 4% | d) 9% |
| e) 1% | f) 7% | g) 8% | h) 6% |

3. Change each percent to a decimal.

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|---------|---------|---------|---------|
| a) 150% | b) 3.5% | c) 5.8% | d) 200% |
|---------|---------|---------|---------|

Answers:

1.a) 0.85 b) 0.32 c) 0.12 d) 0.93 e) 0.98 f) 0.49 g) 0.18 h) 0.66
2.a) 0.03 b) 0.02 c) 0.04 d) 0.09 e) 0.01 f) 0.07 g) 0.08 h) 0.06
3.a) 1.50 b) 0.035 c) 0.058 d) 2.00

Finding Percents of Numbers

$$\begin{aligned} 15\% \text{ of } \$2800 &= 0.15 \times 2800 \\ &= 420 \end{aligned}$$

$$15\% \text{ of } \$2800 = \$420.$$

"Of" means multiply.

Don't show \$ in the actual calculations.

Use your calculator.

1. Find.

a) 50% of \$120

b) 75% of \$400

c) 80% of \$1200

d) 25% of \$30

e) 10% of \$29

f) 72% of \$24 000

2. Find.

a) 15% of \$123

b) 67% of \$830

c) 86% of \$1259

d) 8% of \$37

e) 1% of \$152

f) 7% of \$23 255

3. Find.

a) 15% of \$6549

b) 75% of \$6.37

c) 100% of 57

d) 7% of 4538.59

e) 3.7% of \$40

f) 60% of \$15.99

Answers:

1.a) \$60 b) \$300 c) \$960 d) \$7.50 e) \$2.90 f) \$17280

2.a) \$18.45 b) \$556.10 c) \$1082.74 d) \$2.96 e) \$1.52 f) \$1627.85

3.a) \$982.35 b) \$4.78 c) 57 d) 317.70 e) \$1.48 f) \$9.59