Estimating with Percent

Recall that to calculate a percent of a number, you must first change the percent to a decimal by dividing by 100, then multiply the number in question by the decimal.

Ex. Find 28% of 3458

$28\% \div 100 = 0.28 \times 3458 = 968.24$

1. **Calculate** the following:
   a. 10% of 23 _____
   b. 10% of 155 _____
   c. 10% of 96 _____
   d. 10% of 4.25 _____
   e. 10% of 1985 _____
   f. 10% of 46.8 _____
   g. 10% of 0.983 _____
   h. 10% of 5 _____

2. What do you notice about your calculations in #1?

3. Use what you learned in #1 to calculate the following **mentally** (without a calculator):
   a. 10% of 89 _____ c. 10% of 53.4 _____
   b. 10% of 726 _____ d. 10% of 0.631 _____

4. **Calculate** the following:
   a. 1% of 23 _____
   b. 1% of 155 _____
   c. 1% of 96 _____
   d. 1% of 4.25 _____
   e. 1% of 1985 _____

f. 1% of 46.8 _____

g. 1% of 0.983 _____

h. 1% of 5 _____

5. What do you notice about your calculations in #4?

6. Use what you learnt in #4 to help you determine the following **mentally** (without a calculator):

a. 1% of 39 _____ c. 1% of 0.067 _____

b. 1% of 462.3 _____ d. 1% of 98.3 _____

7. **Calculate** the following:

a. 50% of 28 _____

b. 50% of 196 _____

c. 50% of 2003 _____

d. 50% of 80 000 _____

e. 50% of 0.64 _____

f. 50% of 867 _____

8. What do you notice about your calculation in #7?

9. Use what you learnt from #7 to **estimate** the following:

a. 50% of 78 _____ c. 50% of 136.79 _____

b. 50% of 2043 _____ d. 50% of 43 789 _____

* Because you are estimating here you may need to round the number in question to a number that is close to it, but easier to work with.

Example Find 50% of 47.6 ← For this you could round it to 48 or even 50 to make estimating easy.

Estimating should be quick and easy so use a number that makes it so!