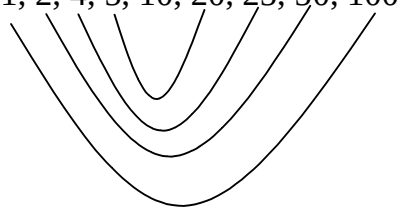
Percentage of a Whole Number 2b

Since we know that the % sign means 'in every hundred' we can use the factors of 100 to help us calculate percentages quickly. Let's look at the factors of 100.

Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100



Notice how the factors of 100 pair up. 1 x 100, 2 x 50, 4 x 25, 5 x 20. !0 of course has no pair since 10 x 10 = 100. We can use this knowledge of factors to calculate some percentages quickly and easily.

Example: Find 50% of the number 840. How do we find 50% of something? Look at the pair of 50 in our factors of 100. Its pair is two. So we divide our number by two.
50% of 840 = 840 ÷ 2 = 420

But what about 40% of 840?

40 is not a factor of 100 but we can use a 2 step method to find this percentage.

First find 10% of 840 by dividing it by 10. 840 ÷ 10 = 84.

Then multiply this answer by 4. 84 x 4 = 336. So 40% of 840 is 336

Look at the problems below and see if you can calculate the answers using the 2 step method.

1. 40% of 820 = _____

2. 60% of 260 = _____

3. 80% of 140 = _____

4. 42% of 600 = _____

5. 64% of 425 = _____

6. 55% of 280 = _____

ANSWERS

1. 40% of 820 = 820 ÷ 10 = 82 x 4 = 328

2. 60% of 260 = 260 ÷ 10 = 26 x 6 = 156

3. 80% of 140 = 140 ÷ 10 = 14 x 8 = 112

4. 42% of 600 = 600 ÷ 10 = 60. 60 ÷ 5 = 12. 60 x 4 = 240 + 12 = 252

5. 64% of 425 = 425 ÷ 10 = 42.5 x 6 = 255 + (42.5 ÷ 5 = 8.5) x 2 = 17 + 255 = 272

6. 55% of 280 = 280 ÷ 10 = 28 x 5 = 140 + (28 ÷ 2 = 14) 140 + 14 = 154