Percentage of an amount – multi-step

1 **a)** Use the bar model to find 10% of 500

0%　10%　20%　30%　40%　50%　60%　70%　80%　90%　100%

500
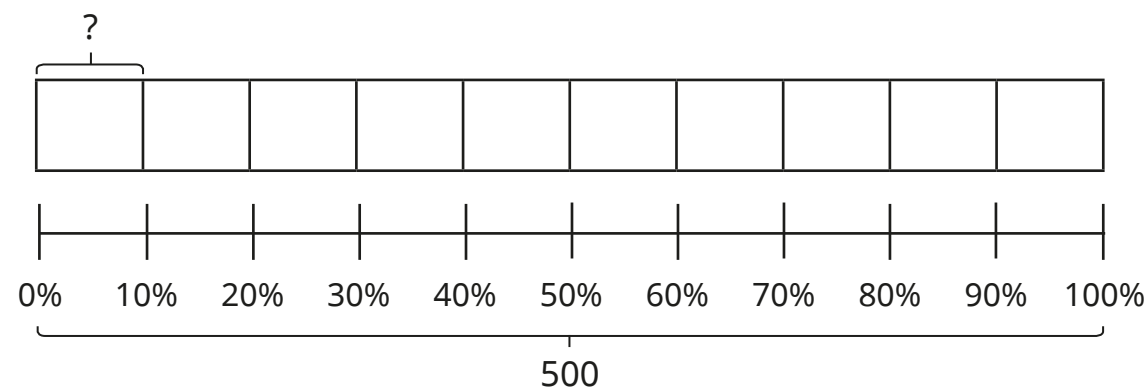
10% of 500 = ☐

b) Use your answer to part a) to help you complete the calculations.

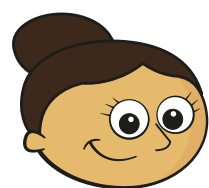20% of 500 = ☐　　70% of 500 = ☐

90% of 500 = ☐　　60% of 500 = ☐

30% of 500 = ☐　　100% of 500 = ☐

2 Dora is finding percentages.

To find 5%, I can find 10% and then halve it.

Explain why Dora is correct.

3 Work out the percentages of the amounts.

a) 5% of 40 = ☐　　　**d)** 5% of 2,000 = ☐

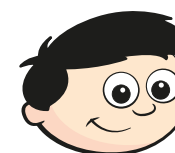**b)** 5% of 400 = ☐　　　**e)** 5% of 6,000 = ☐

c) 5% of 4,000 = ☐　　**f)** 5% of 2,700 = ☐
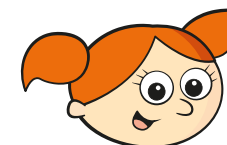
What do you notice about your answers?

4 Dexter and Alex are asked to find 75% of 340

a) Use Dexter's method to find 75% of 340

I will find 25% and multiply it by 3

☐

b) Use Alex's method to find 75% of 340

I will find 10% and multiply it by 7, then find 5% and add them together.

☐

Are there any other methods you could use?

5 Here are some percentages.

| 20% | 90% | 60% | 15% | 55% | 40% |

Talk to a partner about different methods for finding these percentages of an amount.
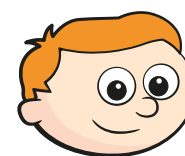
6 Calculate the percentages.

a) 20% of 1,000 = ⬜

    20% of 550 = ⬜

    20% of 40 = ⬜

d) 15% of 1,000 = ⬜

    15% of 300 = ⬜

    15% of 30 = ⬜

b) 90% of 1,000 = ⬜

    90% of 4,230 = ⬜

    90% of 90 = ⬜

e) 55% of 1,000 = ⬜

    55% of 4,400 = ⬜

    55% of 8 = ⬜

c) 60% of 1,000 = ⬜

    60% of 400 = ⬜

    60% of 98 = ⬜

f) 40% of 1,000 = ⬜

    40% of 400 = ⬜

    40% of 98 = ⬜

7 Ron is calculating these percentages.

| 10% of 20 | 20% of 10 |

> 20% is double 10%, and 10 is half of 20, so I know these will both have the same answer.

Do you agree with Ron? _____

Explain your answer.

8 Here are two sets of percentage calculations.

20% of 40 = ⬜

40% of 20 = ⬜

25% of 60 = ⬜

60% of 25 = ⬜

a) Complete the calculations.

What do you notice about the answers?

b) Write two more sets of similar calculations and work out the answers.

_____

_____

What do you notice?

Does this always happen?

Talk about it with a partner.