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Year 8 Maths Homework Sheet No. 21

To be completed on loose-leaf paper.

Aims:

- **To provide ongoing revision of skills and concepts**
- **To develop procedural knowledge and fluency.**

Need help? →

1. Evaluate the following by setting up and completing the matching fraction related question:

a $\frac{1}{2}$ of 10 **b** $\frac{1}{2}$ of 90 **c** $\frac{1}{2}$ of 7

2. Evaluate the following by setting up and completing the matching fraction related question:

a 50% of 10 **b** 50% of 90 **c** 50% of 7

3. Evaluate the following expressions by substituting a = 8.4, b = 3.7 and c = 0.5. You may use a calculator but need to show all steps in your working as usual for a substation question.

a 2(a + b) ÷ c **b** 2(a + b) + c **c** 2a + (b ÷ c)

4. Expand and simplify, where possible, each of the following.

a 0.7(a + 2b) **b** 0.2(a + b) – 0.1(b –a) **c** 0.3a(a + b) + 0.1b(2b – a)

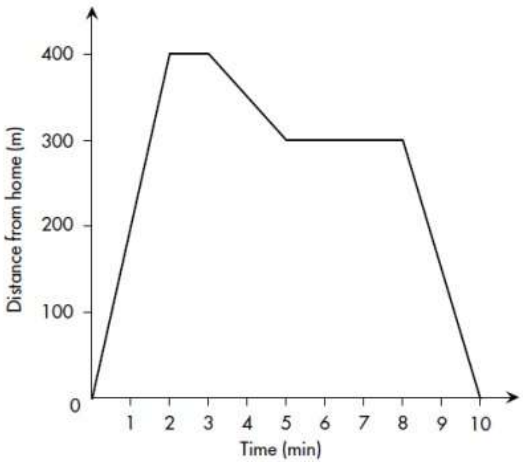
5. Roger leaves home to post a letter. His distance from home is shown for each minute he was away from home.

a How far from home was Roger after 2 minutes?

b Roger stopped to talk to a friend at this time. How long did the conversation last?

c Roger also stopped later in his walk to admire the scenery. When did he stop walking and for how long?

d After stopping to look at the scenery, how long did it take Roger to return home?



ANSWERS: **You must show the mathematics used to get these answers**. Simply writing the answer is not enough.

3 a 48.4 **b** 24.7 **c** 24.2 **4 b** 0.3a – 0.1b **c** $-0.3a^2 + 0.2b^2 + 0.1ab$