


Know and use mental arithmetic strategies for decimals

1 Work out the calculations in your head.

- | | |
|---------------------------------------|---|
| a) $0.5 + 0.3 =$ <input type="text"/> | e) $0.9 - 0.2 =$ <input type="text"/> |
| b) $0.5 + 0.5 =$ <input type="text"/> | f) $0.7 - 0.5 =$ <input type="text"/> |
| c) $0.2 + 0.7 =$ <input type="text"/> | g) $0.5 - 0.5 =$ <input type="text"/> |
| d) $0.6 + 0.4 =$ <input type="text"/> | h) $0.3 + 0.6 - 0.2 =$ <input type="text"/> |

2  0.7 + 0.5 is equal to 0.12

What mistake has Dexter made? What is the correct answer?

3 Complete the statements.

- | | |
|---------------------------------------|---|
| a) $0.5 + 0.8 =$ <input type="text"/> | c) $0.9 + 0.8 =$ <input type="text"/> |
| b) $0.6 + 0.6 =$ <input type="text"/> | d) $0.3 + 0.5 + 0.8 =$ <input type="text"/> |

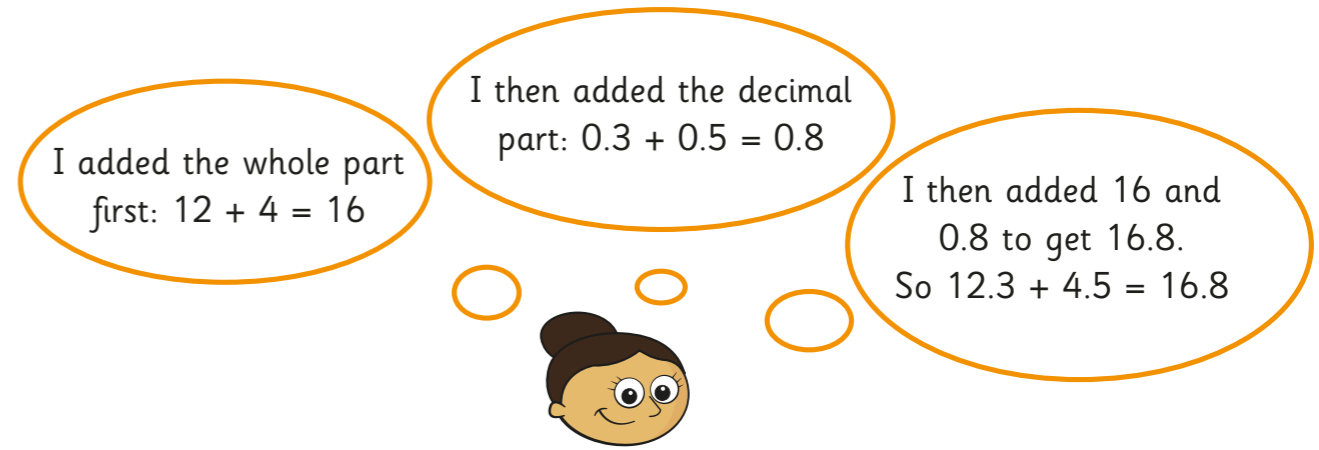
e) $0.2 + 0.9 =$

g) + $0.7 = 1.4$

f) $0.5 +$ $= 1.1$

h) $0.9 +$ $= 1.6$

4 Dora is working out $12.3 + 4.5$ mentally.



I added the whole part first: $12 + 4 = 16$

I then added the decimal part: $0.3 + 0.5 = 0.8$


I then added 16 and 0.8 to get 16.8. So $12.3 + 4.5 = 16.8$

Use Dora's method or another method to work out the additions mentally.

- | | |
|---|---|
| a) $2.6 + 3.2 =$ <input type="text"/> | d) $19.8 + 40.1 =$ <input type="text"/> |
| b) $13.2 + 2.7 =$ <input type="text"/> | e) $2.8 + 0.4 =$ <input type="text"/> |
| c) $26.5 + 32.4 =$ <input type="text"/> | f) $11.5 + 2.9 =$ <input type="text"/> |

5 Mr Jones wants to buy these items in the supermarket.



- a) Work out the total cost of the items mentally.
- b) Check your answer on a calculator.
- Talk about your method with a partner.



6 a) Work out the subtractions.

$3 - 0.2 = \square$

$1 - 0.6 = \square$

$3 - 0.3 = \square$

$2 - 0.6 = \square$

$3 - 0.4 = \square$

$3 - 0.6 = \square$

$3 - 0.5 = \square$

$5 - 0.6 = \square$

$3 - 0.7 = \square$

$8 - 0.6 = \square$

$3 - 0.9 = \square$

$11 - 0.6 = \square$

What do you notice?

b) Work out the multiplications.

$0.4 \times 3 = \square$

$0.3 \times 0.5 = \square$

$0.4 \times 4 = \square$

$0.8 \times 0.2 = \square$

$0.4 \times 5 = \square$

$0.5 \times 0.7 = \square$

$0.6 \times 7 = \square$

$0.6^2 = \square$

$0.6 \times 8 = \square$

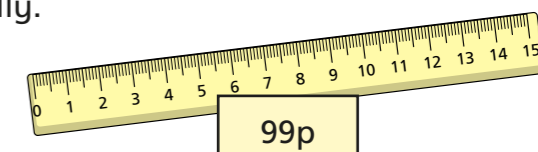
$0.2 \times 0.3 = \square$

$0.6 \times 9 = \square$

$0.9 \times 0.7 = \square$

7 Explain how you can mentally work out $3.4 - 1.8$

8 a) Work out the cost of 5 rulers mentally.



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b) Work out the cost of 3 cups of coffee mentally.



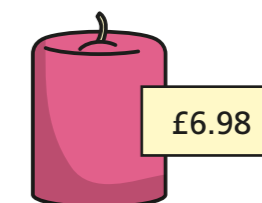
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c) Work out the cost of 7 books mentally.



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d) Work out the cost of 7 candles mentally.



£

9 Here are some multiplications and divisions.

Work them out mentally.

a) $2.4 \div 4 = \square$

c) $0.32 \div 8 = \square$

e) $4.5 \div 5 = \square$

b) $3.2 \times 3 = \square$

d) $1.7 \times 7 = \square$

f) $3.9 \times 11 = \square$

Talk about your method with a partner.