

## KS3 Higher Week 6 homework

1 Find the following **without** using a calculator

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| a) 10% of 40  | b) 10% of 310 | c) 10% of 65  | d) 10% of 27  | e) 5% of 240  |
| f) 5% of 36   | g) 1% of 600  | h) 1% of 96   | i) 20% of 130 | j) 20% of 56  |
| k) 21% of 730 | l) 40% of 12  | m) 99% of 300 | n) 95% of 340 | o) 0.5% of 42 |

2 Convert the following percentages to decimals

- |        |        |       |          |         |       |
|--------|--------|-------|----------|---------|-------|
| a) 45% | b) 63% | c) 4% | d) 12.5% | e) 6.5% | f) 1% |
|--------|--------|-------|----------|---------|-------|

3 Find 32% of 40 **START** by converting 32% to a decimal  $32\% = 0.\underline{\quad}$

Now times this decimal by 40 USING your calculator  $0.\underline{\quad} \times 40 = ?$

4 Find the following percentages of the amounts by converting to a decimal first and USING YOUR CALCULATOR round your answer to 1 decimal place where necessary

- |              |               |               |              |                |
|--------------|---------------|---------------|--------------|----------------|
| a) 22% of 56 | b) 48% of 200 | c) 63% of 420 | d) 13% of 89 | e) 4% of 8,500 |
|--------------|---------------|---------------|--------------|----------------|

5 INCREASE £24 by 30%

1. start by finding new percentage  $100 + 30 = ?$
2. convert this percentage to a decimal ( divide by 100)
3. now times your decimal by 24

6 Increase the following percentages by the amounts remember start by finding new percentage round your answers to 1 decimal place where necessary

- |                           |                  |               |              |                |
|---------------------------|------------------|---------------|--------------|----------------|
| a) 76 by 50%              | b) 452 by 24%    | c) 560 by 18% | d) 34 by 5%  |                |
| round to 2 decimal places | e) £45.60 by 12% | f) £8 by 35%  | g) £65 by 3% | f) £67 by 2.5% |

7 Decrease the following percentages by the amounts round your answers to 1 decimal place where necessary

- |                           |                  |                |                 |                  |
|---------------------------|------------------|----------------|-----------------|------------------|
| a) 36 by 15%              | b) 520 by 24%    | c) 54kg by 71% | d) 6.7 kg by 9% |                  |
| round to 2 decimal places | e) £45.60 by 10% | f) £65 by 3%   | g) £82 by 2.5%  | f) £7,680 by 45% |

8 A shop has a 20% off sale, it has for sale the following items, what are the sale prices? round your answers to 2 decimal places

- |  |                                       |
|--|---------------------------------------|
| a) A hat originally priced at £29.99           | b) A scarf originally priced at £8.99 |
| c) A pair of boots originally priced at £65.59 |                                       |

9 A baby's birth weight is 3.4kg after 2 weeks she has put on 18% in weight, how much does she weigh now?

10 A car salesman buys a car for £3,500 he gives the car a wash and sticks a new price tag on that is 40% more than he originally paid, how much is he asking for the car?

11 **Paint r us** sell 1 litre tins of paint priced at £7.99 per tin.

This weekend they have a special offer **35% OFF ALL PAINT**

I need to buy 8 litres of paint, how much will I pay this weekend?

12 Here are the cost of some items in a hardware shop before VAT

- |                  |                               |                                |
|------------------|-------------------------------|--------------------------------|
| a) Spanner £5.76 | b) Box of 5 inch nails £ 8.30 | c) Pack of paint brushes £6.20 |
|------------------|-------------------------------|--------------------------------|

If VAT of 17.5% is then added, what is the actual cost of the items?

### A bit of revision

13 Find the a) HCF & b) LCM of 12 & 20

14 Is 234,564 a prime number? ( hint look at the last digit!)

15 Find the prime factors of 60

16 Work out

- |                     |                           |                |                 |                      |
|---------------------|---------------------------|----------------|-----------------|----------------------|
| a) $6 + 3 \times 5$ | b) $\frac{3}{8}$ of £4.80 | c) $7^2 - 6^2$ | d) $\sqrt{144}$ | c) $2^3 / \sqrt{16}$ |
|---------------------|---------------------------|----------------|-----------------|----------------------|

17 Jed scored 18 out of 25 in a test and Emily scored 16 out of 20 who got the highest score?