

1. Find the Highest Common Factor of 18 and 30

Write out the factors of each first.

1 x 18	1 x 30	Highest factor in both is 6 So <u>HCF is 6</u>
2 x 9	2 x 15	
3 x 6	3 x 10	
	4 x 7.5	
	5 x 6	

2. Find the  $n^{\text{th}}$  term of 4, 7, 10, 13, ...

+1, 3, 6, 9, 12 (Multiples of 3 above terms)  
 4, 7, 10, 13, ...  
 +3 +3  
 $3n + 1 \Rightarrow n^{\text{th}}$  term

3. Work out  $25 - 9 \times 2$

Multiply first  $9 \times 2 = 18$   
 then  $25 - 18 = 7$  Answer is 7

4. Work out  $72 \times 3.4$

$3.4 \times 10 = 34$  so  $72 \times 34 = 2448$

Now $\div 10$ so	$\begin{array}{r} 72 \\ \times 34 \\ \hline 288 \\ 2160 \\ \hline 2448 \end{array}$
$2448 \div 10 = 244.8$	
Answer is <u>244.8</u>	

5. Work out  $3780 \div 30$

$\begin{array}{r} 126 \\ 30 \overline{) 3780} \\ \underline{30} \phantom{00} \\ 78 \phantom{0} \\ \underline{60} \phantom{0} \\ 180 \\ \underline{180} \\ 0 \end{array}$	30 into 37 once r 7 30 into 78 twice r 18 30 into 180 exactly 6 times
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Answer is 126

6. Work out  $2\frac{4}{5} - 1\frac{1}{3}$

Change to improper first:  $2\frac{4}{5} = \frac{14}{5}$   $1\frac{1}{3} = \frac{4}{3}$

$$\frac{14}{5} - \frac{4}{3} = \frac{42}{15} - \frac{20}{15} = \frac{22}{15}$$

Change  $\frac{22}{15}$  into mixed  $1\frac{7}{15}$  answer

7. Work out 15% of £224

10% of £224 is  $224 \div 10 = £22.40$

5% of £224 is  $£22.40 \div 2 = £11.20$

So 15% is  $£22.40 + £11.20 = £33.60$

Answer is £33.60

8. Expand  $3(2x - 5)$

$\begin{array}{r} \times 2x \quad -5 \\ 3 \overline{) 6x - 15} \end{array}$	Answer is <u><math>6x - 15</math></u>
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9. Solve  $5x - 8 = 27$

$$5x - 8 = 27$$

$$+8 \quad +8$$

Answer is  $x = 7$

$$5x = 35$$

$$\div 5 \quad \div 5$$

$$x = 7$$

10. Work out the value of  $4x - 5$  when  $x = 6$

$$4 \times 6 = 24$$

$$24 - 5 = 19 \quad \text{Answer is } \underline{19}$$