



## QT Quick Test 1 - Foundation Non Calculator

1. (a) Work out the value of  $(32 - 4) \div 7 + 10$

$$28 \div 7 + 10 = 4 + 10 = \underline{\underline{14}}$$

- (b) Zara says that  $30 - 5 \times 4$  is 100.

Zaina says that  $30 - 5 \times 4$  is 10.

Who is correct? Give a reason for your answer.

Zaina BDMAS.

2. Which fraction is larger?  $\frac{4}{7}$  or  $\frac{5}{8}$ ? You must show all your working.

$$\frac{32}{56} \quad \frac{35}{56} \quad \underline{\underline{\frac{5}{8}}}$$

3. (a) Factorise  $3x + 9$

$$3(x + 3)$$

- (b) Factorise  $x^2 - 14x$

$$x(x - 14)$$

4. There are  $3 \frac{1}{2}$  litres of orange juice in a large jug. Abi is going to pour the orange juice into some glasses. She will fill each glass with 275ml of orange juice. Work out the greatest number of glasses Abi can fill.

$$\frac{3500}{275} = \frac{700}{55} = \frac{140}{11} = 12 \quad (12 \times 11 = 132)$$

$$5 \overline{) 275}$$



5. Ray bought a new motorhome for £20,000. The motorhome depreciated by 10% in the first year, and then by a further 15% in the second year. What is the value of the motorhome at the end of 2 years?

1st year	2nd year	
20,000 - 10%	10% = 1800	18000 -
	5% = 900	2700
20,000 -		<u>15300</u>
4,000	2700	
<u>16,000</u>		<u>£15300</u>

6. Here are the first four terms of an arithmetic sequence 5 11 17 23  
Is 133 a term in this arithmetic sequence? You must give a reason for your answer.

2000

5 11 17 23

+6 +6 +6 +6

nth term  $6n - 1$

$$6n - 1 = 133$$
$$6n = 134$$

$n$  not whole

$\therefore$  not in sequence.

- 7.(a) Write 75,000 in standard form  
(b) Write  $7.3 \times 10^{-4}$  as an ordinary number  
(c) Work out the value of  $(3 \times 10^6) \times (4 \times 10^7)$

(a)  $7.5 \times 10^4$

(b)  $0.00073$

(c)  $(3 \times 4) \times (10^6 \times 10^7)$

$$12 \times 10^{13} = \underline{\underline{1.2 \times 10^{14}}}$$