Topic Test 1 (20 minutes)

Factors and multiples - Foundation

1 Circle the number that is **both** a multiple of 3 and a multiple of 5

[1 mark]

10 25 27 30 35

2 Circle the number that is a prime factor of 189

[1 mark]

7 9 13 17 189

3 Burgers are sold in packs of 6
Buns are sold in packs of 10

Liam wants to buy the same number of burgers and buns.

Work out the **smallest** number of packs of each items he could buy.

[3 marks]

_____ packs of burgers

_____ packs of buns

4 Here is a menu.

Starter	Main	Dessert
Soup (S)	Curry (C)	Ice cream (I)
Melon (M)	Roast (R)	Fruit (F)
Juice (J)	Pasta (P)	

4 (a) Beth chooses a starter and a main.

List all the possible combinations she could choose.
The first one has been done for you.

[2 marks]

SC

4 (b) Chen chooses a main and a dessert.

How many **more** possible combinations can Beth have than Chen?

[2 marks]

Answer _____

5 Mo says,

" Any common multiple of 2 and 4 is also **always** a multiple of 8"

Give an example to show that Mo is incorrect.

[1 mark]

6 a, b and c are **different** prime numbers.

Work out a set of values for a, b and c so that $a + b = 2c$

[2 marks]

$a =$ _____ $b =$ _____ $c =$ _____

7 A number is

- an **odd** multiple of 3
- a common factor of 180 and 750

Work out the **greatest** possible value of the number.

[3 marks]

Answer _____

8 $x = 3^2 \times 5$ $y = 2 \times 5^2$

Circle the lowest common multiple of x and y.

[1 mark]

5 30 450 2250

9 (a) Write 280 as a product of its prime factors.

[2 marks]

Answer _____

9 (b) $588 = 2^2 \times 3 \times 7^2$

Work out the highest common factor of 280 and 588

[2 marks]

Answer _____