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| **Foundation Unit 1c–d topic test** |
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| **Date:** |
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| **Time:** 40 minutes  |
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| **Total marks available:** 38  |
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| **Total marks achieved:** \_\_\_\_\_\_  |
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**Questions**

**Q1.**

(a) Work out 2 × (8 – 3)

. . . . . . . . . . . . . . . . . . . . . .

**(1)**

 (b) Work out 32 + 4 × 5

. . . . . . . . . . . . . . . . . . . . . .

**(2)**

 (c) Find the value of 53

. . . . . . . . . . . . . . . . . . . . . .

**(1)**

 (d) Find the square root of 16

. . . . . . . . . . . . . . . . . . . . . .

**(1)**

**(Total for Question is 5 marks)**

**Q2.**

(a) Write down the value of 72

      ..............................................................................................................................................

**(1)**

(b) Write down the value of

      ..............................................................................................................................................

**(1)**

(c) Write down the value of 23

      ..............................................................................................................................................

**(1)**

**(Total for Question is 3 marks)**

**Q3.**

(a) (i) Work out

   Write down all the figures from your calculator display.

      ..............................................................................................................................................

(ii) Write your answer to (a)(i) correct to 2 significant figures.

      ..............................................................................................................................................

**(2)**

(b) Work out the value of 105

      ..............................................................................................................................................

**(1)**

**(Total for Question is 3 marks)**

**Q4.**

(a) Work out 34

      ..............................................................................................................................................

**(1)**

(b) Write down the cube root of 64

      ..............................................................................................................................................

**(1)**

**(Total for Question is 2 marks)**

**Q5.**

Work out the value of √14.44 × (7.3 − 2.45)2

Write down all the figures on your calculator display.

...........................................................

**(Total for Question is 2 marks)**

**Q6.**

Here is a list of numbers.

5     15     30     50     60     90     100     125

From the numbers in the list, write down

(i) two different numbers that add up to an even number

      ..............................................................................................................................................

(ii) a multiple of 20

      ..............................................................................................................................................

(iii) a factor of 45

      ..............................................................................................................................................

(iv) a cube number

      ..............................................................................................................................................

**(Total for Question is 4 marks)**

**Q7.**

Sally has three tiles.
Each tile has a different number on it.

Sally puts the three tiles down to make a number.
Each number is made with all three tiles.

How many different numbers can Sally make?

**(Total for question = 2 marks)**

**Q8.**

Here are four cards.
There is a number on each card.


(a)  Write down the largest 4-digit even number that can be made using each card only once.

...........................................................

**(2)**

(b)  Write down all the 2-digit numbers that can be made using these cards.

**(2)**

**(Total for question is 4 marks)**

**Q9.**

Express 180 as a product of its prime factors.

...........................................................

**(Total for Question is 3 marks)**

**Q10.**

Caroline is making some table decorations.
Each decoration is made from a candle and a holder.


Caroline buys some candles and some holders each in packs.

There are 30 candles in a pack of candles.
There are 18 holders in a pack of holders.

Caroline buys exactly the same number of candles and holders.

(i)  How many packs of candles and how many packs of holders does Caroline buy?

........................................................... packs of candles

........................................................... packs of holders

Caroline uses all her candles and all her holders.

(ii)  How many table decorations does Caroline make?

........................................................... table decorations

**(Total for question = 5 marks)**

**Q11.**

Veena bought some food for a barbecue.
She is going to make some hot dogs.
She needs a bread roll and a sausage for each hot dog.

There are 40 bread rolls in a pack.
There are 24 sausages in a pack.

Veena bought exactly the same number of bread rolls and sausages.

(i) How many packs of bread rolls and packs of sausages did she buy?

. . . . . . . . . . . . . . . . . . . . . . packs of bread rolls

. . . . . . . . . . . . . . . . . . . . . . packs of sausages.

(ii) How many hot dogs can she make?

      ..............................................................................................................................................

**(Total for Question is 5 marks)**