Q1.
Write 36 as a product of prime factors.

Give your answer in index form.

Answer _____

(Total 3 marks)

Q2.
Diaries are sold in boxes of 12
Pencils are sold in boxes of 10
Rulers are sold in boxes of 6

A teacher wants to buy the same number of diaries, pencils and rulers.

Work out the smallest number of boxes of each item he could buy.

_____

_____

_____

_____

_____

_____boxes of diaries

_____boxes of pencils

_____boxes of rulers

(Total 3 marks)

Q3.
Circle the number that is not a multiple of 6

24   76   108   144

(Total 1 mark)

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Q4.

Write 56 as a product of prime factors.

Answer _____

(Total 2 marks)

Q5.

Circle all the numbers that have 11 as a factor.

      121   122   132   133

(Total 1 mark)

Q6.

Which one of these numbers is a multiple of 12?
Circle your answer.

      72   74   76   78

(Total 1 mark)

Calculator

Q7.

Beth uses these four cards to make 4-digit numbers.

How many different 4-digit numbers can she make that are greater than 8000?

Answer _____

(Total 2 marks)

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Q8.

Write 140 as a product of prime numbers in index form.

_____

_____

_____

_____

_____

_____

Answer _____

(Total 3 marks)

Q9.

Write   225   as   the   product   of   its   prime   factors.

_____

_____

_____

_____

Answer _____

(Total 2 marks)

Q10.

Which of these numbers is one more than a multiple of 5?

Circle your answer.

15   19   26   30

(Total 1 mark)

Q11.

Which of these numbers has exactly three factors?

Circle your answer.

3   4   5   6

(Total 1 mark)

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Q12.

Circle the multiple of both 8 and 12

4   32   72   108

(Total 1 mark)

Q13.

Written as the product of its prime factors

$$672 = 25 \times 3 \times 7$$

(a)   Write 252 as the product of its prime factors.

_____

_____

_____

_____

_____

_____

Answer _____

(2)

(b)   Work out the value of the highest common factor of 672 and 252

_____

Answer _____

(1)

(Total 3 marks)

Q14.

What is the largest two-digit prime number?
Circle your answer.

93   95   97   99

(Total 1 mark)

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Q15.

Write down all the factors of 18

_____

_____

_____

_____

Answer _____

(Total 2 marks)

Q16.

Write 280 as a product of its prime factors.

Answer _____

(Total 2 marks)

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