

**YEAR SEVEN** Mathex 2014

Team

Question 1

Add the next two numbers to this series.

1, 3, 7, 15, \_\_, \_\_

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Question 2

If the maths test scores in the class were as follows, what was the average score in that class?

78, 59, 77, 64, 75, 82, 71, 77, 88, 78, 70, 69

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Question 3

Hera had 18 packets of cards. Each packet had 6 cards in it. 9 friends shared the cards equally. How many cards did they get each?

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Question 4

One group of Salvation Army carol singers goes to every 6<sup>th</sup> house in a neighbourhood. Another goes to every 8<sup>th</sup> house. At which house will they meet?

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Question 5

What is the sum of the prime numbers between 10 and 40?

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Question 6

Sarah completed the 40hour famine. 14 people sponsored her 25c and hour. 15 people sponsored her 50c an hour. Her mother sponsored her \$1.00 an hour and her little brother sponsored her 15c an hour.

How much did Sarah raise?

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Question 7

What 5 consecutive numbers have the sum of 40?

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Question 8

The temperatures of the planets were as follows: Earth  $22^{\circ}\text{C}$ ; Mercury  $350^{\circ}\text{C}$ ; Saturn  $-180^{\circ}\text{C}$ ; Jupiter  $-123^{\circ}\text{C}$ ; Neptune  $-228^{\circ}\text{C}$ ; Uranus  $-218^{\circ}\text{C}$ ; Mars  $-23^{\circ}\text{C}$ ; and Venus  $475^{\circ}\text{C}$ . What is the difference between the temperatures of the 2<sup>nd</sup> hottest and 3<sup>rd</sup> coolest planets?

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Question 9

A rectangular swimming pool is 12 metres long, 8 metres wide and 2 metres deep. What is the surface area of the four walls and floor of the pool?

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Question 10

If I read a book up to page 130, how many time would the digit 2 have been in the page numbers?

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Question 11

How many degrees is the angle formed by the hands of a clock at 12:30?

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Question 12

Countdown Taupo is open Monday through to Saturday from 8:00am to midnight and Sunday from 10:00am to 8:00pm. How many hours is it open in one week?

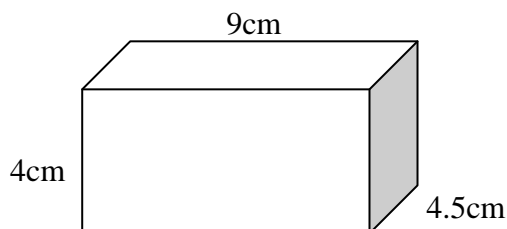
Question 13

Sam is making gingerbread men. She uses two raisins for eyes and three raisins for buttons for each gingerbread man. If she buys four boxes of raisins, each with 120 raisins in them, how many dozens of gingerbread men can she make?

Question 14

This shape has the dimensions of 9 cm by 4 cm by 4.5 cm.

What is the total volume?



Question 15

A dice is rolled 60 times. How many times would you expect to throw an even number?

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Question 16

$$10 - (2^2 + 12) \div 8 =$$

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Question 17

125 small cubes are glued together to make a large cube. How many of the original cubes can still be seen?

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Question 18

At the first stop a school bus collects 1 person, at the second stop 2 people, at the third stop 3 people, continuing in this pattern until it reaches school. When the bus stops at school it lets off 45 people. How many stops did the bus make altogether?

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Question 19

How many vertices are there on a pentagon based pyramid?

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Question 20

Tamzin gets \$930 a week. At the end of the year she got a bonus calculated at 5% of her years income. How much did she earn for the whole year?

## YEAR SEVEN ANSWERS 2014

20. \$50778
19. 6
18. 10 (stops)
17. 98 (cubes)
16. 8
15. 30 (times)
14.  $162\text{cm}^3$
13. 8 (dozen)
12. 106 (hours)
11.  $72^\circ$
10. 33 times
9. 176 square metres / sq. m /  $\text{m}^2$
8.  $530^\circ\text{C}$
7. 6, 7, 8, 9, 10
6. \$486.00 / \$486 / 486 dollars
5. 180
4. 24<sup>th</sup> house
3. 12 (cards)
2. 74
1. 31, 63



