

MATHSWELL 2017 Y5/6 MULTICHOICE

Question 1

There are five people at a zoo. They are outnumbered by animals to a ratio of 12 : 4. How many animals are at the zoo?

- A. 4 B. 5 C. 12 D. 15 E. 18

Question 2

Harriet has made some slime. It is doubling in volume by the minute. It starts at 3:00 pm. By 3:20 pm, it has filled the whole room. At what time had it filled a quarter of the room?

- A. 3:05 pm B. 3:10 pm C. 3:12 pm D. 3:14 pm E. 3:18 pm

Question 3

The word GULLIBLE is written on the ceiling. If it is all in capital letters, and in this font, how many right angles are in the whole word?

- A. 12 B. 14 C. 15 D. 19 E. 21

Question 4

A dragon is attempting to rescue a knight from a tall tower, guarded by a princess. He has two dice and can only roll them once. If he rolls an eight or higher he slays the princess, and if he rolls a three or lower, he is killed by the princess. How many different rolls can he throw if he is to survive?

- A. 32 B. 33 C. 34 D. 29 E. 36

Question 5

There are 23 corgis in a race. If they are numbered from 1 to 23 inclusive, how many corgis have prime numbers as their number?

- A. 7 B. 8 C. 9 D. 10 E. 11

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Question 6

Tane has a rocket powered boot on. If he bends his leg back at an angle of 30° , he kicks with 50 kN of force. If the furthest his leg can bend is 180° and the power of his boot is relative to the angle of his leg, what is the maximum amount of force Tane can kick with?

- A. 100 kN B. 150 kN C. 200 kN D. 250 kN E. 300 kN

Question 7

You have twelve bananas. For every banana you eat you give away 0.3 of your remaining bananas. If you eat nine bananas, how much of the last banana do you have left?

- A. 0.3 B. 0.6 C. 0.9 D. 0.12 E. 0.2

Question 8

What is the next number in this sequence: 5, 25, 625, ____?

- A. 400,000 B. 144,020 C. 200,641 D. 144,399 E. 390,625

Question 9

Which of the following lengths is the shortest?

- A. 5 km B. 2000 m C. 2,000,000 cm D. 500,000,000 mm E. 0.5 Mm

Question 10

I am greater than ten, but less than forty. I am divisible by two and divisible by nineteen. What number am I?

- A. 35 B. 36 C. 37 D. 38 E. 39

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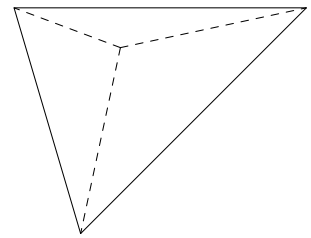
Question 11

Find the smallest of five consecutive odd numbers whose sum is 65.

- A. 9 B. 11 C. 13 D. 15 E. 17

Question 12

All the faces of a regular tetrahedron (pictured right) are painted so that no two adjacent faces are the same colour. How many different colours of paint are there?



- A. 1 B. 2 C. 3 D. 4 E. None of these

Question 13

A quadrilateral has only two axes of symmetry and four right angles. What is this quadrilateral?

- A. Square B. Kite C. Parallelogram D. Rectangle E. None of these

Question 14

Lachie is in an elevator. He goes down four levels, up 23 levels, then down seven levels. Lachie arrives on level 34. On what level did Lachie enter the elevator?

- A. 20 B. 22 C. 24 D. 26 E. 28

Question 15

$5Y + 10 = 360$. What is the value of Y ?

- A. 8 B. 70 C. 16 D. 20 E. 24

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Question 16

Cian is piloting a spaceship. If he is flying at 2,652,060 km/h, how far does he fly in one minute?

- A. 44,201 km B. 44,202 km C. 44,203 km D. 44,204 km E. 44,205 km

Question 17

Rounded to the nearest thousand, how many seconds are in one hour?

- A. 3600 B. 3200 C. 4000 D. 3000 E. 3800

Question 18

Rowan eats a quarter of a cake. There are 21 pieces remaining. If all the pieces are cut the same size, how many pieces is $\frac{1}{14}$ of the whole cake?

- A. 1 B. 4 C. 3 D. 5 E. 2

Question 19

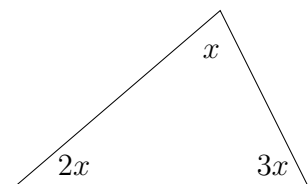
Which of the following equates to one?

- A. $5 - 2 - 1 \times 3$ B. $2 - 5 - 3 \times 1$ C. $1 \times 2 - 3 + 5$ D. $2 - 1 \times 5 + 3$ E. $3 + 2 - 5 + 1$

Question 20

In the diagram on the right, in degrees, what is the value of x ?

- A. 180° B. 360° C. 60° D. 90° E. 30°



Question 21

What is the greatest number of Tuesdays that occur in a 54 day period?

- A. 5 B. 6 C. 7 D. 8 E. 9

Question 22

Louis gives the following description of a quadrilateral:

- It has only one axis of symmetry
- It has no pairs of parallel sides
- Its diagonals bisect at right angles

Which of the following quadrilaterals could it be?

- A. Square B. Rectangle C. Kite D. Parallelogram E. Rhombus

Question 23

What is the value of x ?

1	3	6	7	8	10
2	10	37	50	x	101

- A. 27 B. 56 C. 65 D. 72 E. 86

Question 24

What is $(\sqrt{3})^2$

- A. 0 B. 3 C. 9 D. 27 E. 4

Question 25

Four numbers have an average of four. What does the fifth number need to be to make a new average of five?

- A. 7 B. 8 C. 9 D. 10 E. 11

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Question 26

Lorne has a bag of jelly beans. If one third of them are red, a quarter of them are blue and he can pull them out one at a time, what are the chances of him pulling out a jelly bean that is neither red nor blue?

- A. 4.1666 B. $\frac{5}{11}$ C. 3 : 8 D. 45 % E. None of these

Question 27

What is 44 % of 90, rounded to the nearest whole number?

- A. 43 B. 45 C. 39 D. 38 E. 40

Question 28

Henri is driving a tank. This tank has a turret that can perform a full rotation in thirty seconds. How many seconds does it take for the turret to turn 120° ?

- A. 5 B. 6 C. 8 D. 10 E. 12

Question 29

Olivia is riding a poptart. It cracks in half every second. If Olivia falls off after it becomes $\frac{1}{128}$ of its original size, how long can Olivia ride it without falling off?

- A. 5s B. 6s C. 7s D. 8s E. 9s

Question 30

Liam finds the answer sheet to the Mathswell questions. But on the answer sheet, every fifth answer is wrong. If there are 55 questions in Mathswell, and Liam writes down all the answers on the sheet, what percentage of Liam's answers are right?

- A. 60 % B. 65 % C. 70 % D. 75 % E. 80 %