

Mathswell 2017

Year 5/6

Multi-Choice

Scrap paper and calculators are allowed.

Write the answer to the question in the provided space.

Question 1: There are 5 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. By 3:20, it has filled the whole room. At what time had it filled a quarter of the room?

A: 3:05

B: 3:10

C: 3:12

D: 3:14

E: 3:18

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 needs an eight or higher to slay 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

Question 6: Tane has a rocket powered boot on. If he bends his leg back at an angle of 30 degrees, it hits with 50Gs of force. If the furthest his leg can bend back is 180 degrees 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: 100Gs

B: 150Gs

C: 200Gs

D: 250Gs

E: 300Gs

Question 7: You have 12 bananas and 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 bananas

B: 0.6 bananas

C: 0.9 bananas

D: 0.12 bananas

E: 0.2 bananas

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: 5km

B: 2,000m

C: 2,000,000cm

D: 511,111,112mm

E: More than one of the above answers

Question 10: I am greater than 10, but less than 40. I am divisible by 2 and divisible by 19. What number am I?

- A: 34
- C: 37
- E: 39

- B: 36
- D: 38

Question 11: Find the smallest of five consecutive odd numbers whose sum is 65.

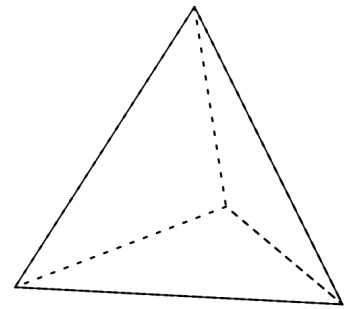
- A: 9
- C: 13
- E: 17

- B: 11
- D: 15

Question 12: All the faces of a regular tetrahedron (pictured right) are painted so that no 2 adjacent faces are the same colour. How many different colours of paint are there?

- A: 1
- C: 3
- E: None of the above

- B: 2
- D: 4



Question 13: A quadrilateral has only 2 axes of symmetry and 4 right angles. What is this quadrilateral?

- A: Square
- C: Parallelogram
- E: None of the above

- B: Kite
- D: Rectangle

Question 14: Lachie is in an elevator. He goes down 4 levels, up 23 levels, then down 7 floors. Lachie arrives on floor 34. On what floor did Lachie enter the elevator?

- A: 20
- C: 24
- E: 28

- B: 22
- D: 26

Question 15: $5Y + 10 = 360$ What is the value of Y?

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

Question 16: Cian is piloting a spaceship. If he is flying at 2,652,060 km/hr, how far does he fly in 1 minute?

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

Question 17: Rounded to the nearest thousand, how many seconds are in an hour?

- A: 3,600
- C: 4,000
- E: 3,800
- B: 3,200
- D: 3,000

Question 18: Rowan eats a quarter of a cake. There are 21 slices remaining. If all the pieces are cut the same size, how many slices is $\frac{1}{14}$ of the whole cake?

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

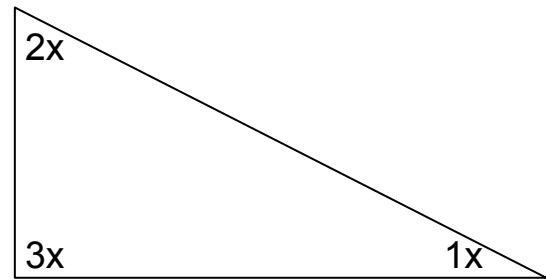
Question 19: With the numbers 1, 2,3, 5. Make the number 1.

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

Question 20: In the shown diagram on the right, in degrees, what is the value of x ?

- A: 180
- 360
- C: 60
- 90
- E: 30

- B:
- D:



Question 21: What is the greatest number of Tuesdays that can

occur in a 54 day period?

- A: 5
- C: 7
- E: 9

- B: 6
- D: 8

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
- C: Kite
- E: Rhombus

- B: Rectangle
- D: Parallelogram

Question 23: What number is X ?

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

- A: 27
- C: 65
- E: 86

- B: 56
- D: 72

Question 24: What is $\sqrt{3^2}$?

- A: 0
- C: 9
- E: 4

- B: 3
- D: 27

Question 25: 4 numbers have an average of 4. What does the 5th number need to be to make a new average of 5?

- A: 7
- C: 9
- E: 11

- B: 8
- D: 10

Question 26: Lorne has a bag of jelly beans. If one third of them are red, a quarter of them a 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 or blue.

- A: 4.1666
- C: 3:8
- E: None of the above

- B: 5/11
- D: 45%

Question 27: What is 44% of 90 (rounded to the nearest whole number)?

- A: 43
- C: 39
- E: 40

- B: 45
- D: 38

Question 28: Henri is driving a tank. This tank has a turret that can perform a full rotation in 30 seconds. How many seconds does it take for the turret to turn 120 degrees?

- A: 5 seconds
- C: 8 seconds
- E: 12 seconds

- B: 6 seconds
- D: 10 seconds

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: 5 seconds

B: 6 seconds

C: 7 seconds

D: 8 seconds

E: 9 seconds

Question 30: Liam finds the answer sheet to the Mathswell questions. But on the answer sheet every 5th 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%

Answers

1. D
2. E
3. A
4. B
5. C
6. E
7. A
8. E
9. B
10. D
11. A
12. D
13. D
14. B
15. B
16. A
17. C
18. E
19. E
20. E
21. D
22. C
23. C
24. B
25. C
26. E
27. E
28. D
29. C
30. E