

MATHS WELL 2014

YEARS 5 & 6

MULTI-CHOICE QUESTIONS

Scrap paper and calculators are permitted

Write the letter to the question in the box on the **answer sheet**.

Do not write more than one letter in each box

Your team can decide to answer the questions together or split the test into 3 parts and answer the questions individually.

Please remember all answers are to be written on the answer sheet

TIME PERMITTED: 20 MINUTES

Question 1: Bailey works at a company where she gets paid \$595.00 per week. She works all week and on weekends. How much money does she earn per day?

- a) \$56.00 per day b) \$85.00 per day
c) \$71.00 per day d) \$ 95.00 per day

Question 2: What number comes next?

92, 83, 74, 65, 56, 47, 38, 29

- a) 13 b) 21
c) 20 d) 11

Question 3: If Tim ate $\frac{4}{16}$ of a pizza then Charlie ate $\frac{2}{3}$, how much pizza would be left?

- a) $\frac{11}{12}$ b) $\frac{6}{19}$
c) $\frac{1}{12}$ d) $\frac{1}{2}$

Question 4: A boat can carry a weight of 230kg. Rangi wants to take his family fishing. Keri weighs 50 kg, Taka weighs 60 kg, Tiharahara weighs 70 kg and Honie weighs 40kg. How much spare space does he have for fishing supplies?

- a) 100kg b) 30kg
c) 10kg d) 200kg

Question 5: Tyrone had started with \$74. He gave \$10 to James. James gave \$21 to Janice. James started with \$78. How much money did James have at the end?

- a) \$67 b) \$71
c) \$59 d) \$50

Question 6: What Icon comes next in this pattern?

@ \$ % !! % \$ @ @ \$ % !! %

- a) @
- b) !
- c) %
- d) \$

Question 7: Natalie was surveying some students from her class, asking how many devices they owned. Their answers were:

2, 3, 7, 5, 3, 4, 4, 1, 6, 2, 3, 4,

What was the mean (average) of these answers? (rounded to one decimal place)

- a) 3.6
- b) 3.7
- c) 40
- d) 6.3

Question 8: Look at this pattern. What number will go in the spare box?

0 1 2 3 5 17
-5 -2 1 4 10

- a) 46
- b) 48
- c) 51
- d) 53

Question 9: Harry is at cycling training. His coach told him to do 16 lots of 400m. Each 400m Harry had to speed up by 3 kilometres per hour. Harry's first 400m is completed at 11 km per hour. How long will it take him to cycle the final 400m?

- a) 60 seconds
- b) 25.6 seconds
- c) 53 seconds
- d) 30 seconds

Question 10: A top sprinter runs 9.5 seconds over 100 metres. If he maintains that speed how fast will he run 1km?

- a) 1 min 50 seconds
- b) 2 min 5 seconds
- c) 1 min 15 seconds
- d) 1 min 35 seconds

Question 11: If a man runs 13.5 kilometres in 3 hours. How many kilometres per hour is he running?

- a) 5.5 kilometres per hour
- b) 5 kilometres per hour
- c) 4 kilometres per hour
- d) 4.5 kilometres per hour

Question 12: There are six children at a holiday camp. The average of their ages is 10. Five of the ages is 5,7,11,12,12. What is the age of the sixth child?

- a) 6
- b) 11.5
- c) 60
- d) 13

Question 13: A group of volunteers planted a total of 30 trees in a local park. Three different types of trees were planted: eucalypt, wattle and pine trees. Of the trees planted, 60% were eucalypt trees and 10% were wattle trees. How many pine trees were planted?

- a) 10
- b) 30
- c) 9
- d) 21

Question 14: Chris works 7:30am till 6pm, 7 days a week. If he earns \$16.50 per hour. How much money will he earn in a week?

- a) \$70.50
- b) \$1212.75
- c) \$826.25
- d) \$1202.75

Question 15: A bookstore favours books with a large range of readers. Looking at the ranges of the ages of the readers, which book has the largest range?

Hunger Games	Hugo Cabret	Big Nate	Beast Quest
12	11	10	13
13	12	12	15
15	15	13	18
17	18	15	22
20	19	17	23
22	23	20	25
24	25	21	28

- a) Hunger Games
- b) Hugo Cabret
- c) Beast Quest
- d) Big Nate

Question 16: Jill is ordering bricks for their house. A brick weighs 0.5 kg. How many bricks can she order if the truck can take 130 kg?

- a) 200 bricks
- b) 320 bricks
- c) 20 bricks
- d) 260 bricks

Question 17: A bag of marbles can be divided equally into groups of 30, 40, 60 and 80. What is the LEAST number of marbles there can be in the bag?

- a) 120
- b) 240
- c) 280
- d) 320

Question 18: Sam has a bag of marbles. He gave $\frac{1}{5}$ of his marbles to one friend and $\frac{4}{10}$ to another friend he is left with 8 marbles. How many marbles did Sam start with?

- a) 15
- b) 20
- c) 21
- d) 25

Question 19: Doug had a number he multiplied by 7, divided by 3, added 17 and subtracted 36. He ended up with 156. What was Doug's original number?

- a) 64
- b) 75
- c) 83
- d) 71

Question 20: The average speed of the AVE train in Spain was 210km/h. If the train travelled for 2 hours 20min, what distance did it cover?

- a) 90km
- b) 294km
- c) 462km
- d) 490km

Question 21: In a jar there are 160 marbles. If Harry takes $\frac{11}{20}$ of the marbles, Josh takes 30% and Ben takes the rest. How many marbles does Ben take?

- a) 50
- b) 15
- c) 20
- d) 24

Question 22: Albert went to the bank to find that his account balance was \$2,000. On the 1st of October, he withdrew \$39. He returned to the bank every day till the end of the month. Each day he repeated the same step. How much money does he have in his account at the end of the month?

- a) \$791
- b) \$1091
- c) \$871
- d) \$396

Question 23: If Jess went to a movie at 11:47am and the movie was 1 hour and 43 minutes long. What time did she come out?

- a) 1:30pm
- b) 1:30am
- c) 1:53pm
- d) 1:53am

Question 24: How old is Kim's Grandmother
If you add 9 years to her age, divide by 4 and then square this number, you have 400.

- a) 74
- b) 73
- c) 72
- d) 71

Question 25: All sales items are discounted by 20%
What was the original price of a sales item that is now selling for \$260?

- a) \$351
- b) \$325
- c) \$400
- d) \$429

Questions 26: A job takes 30 days to complete using 8 people. How long will the job take when it is done by 20 people?

- a) 13 days
- b) 14 days
- c) 12 days
- d) 20 days

Questions 27: Which number is a multiple of 3, 5, and 4?

- a) 12773
- b) 12360
- c) 1155
- d) 17870

Question 28: The cats' ages at the SPCA were 7, 2, 4, 9, 8, 5, 6, 1, 11, 3
Which age was the median?

- a) 8
- b) 6
- c) 5.5
- d) 4.5

Questions 29: Megan has a torch that takes 3 hours and 45 minutes to use up 2 batteries. If Megan has 8 batteries how long can she use the torch for?

- a) 12hrs 30mins c) 15hrs
b) 3hrs 45mins d) 10hrs 20mins

Question 30: The sum of all numbers from 1-50 is:

- a) 1050 b) 1275
c) 1255 d) 1235

**MATHSWELL 2014
YEARS 5 & 6**

Problem Solving

Scrap paper and calculators are permitted

Write the answer to the question in the space provided.

You are permitted two attempts for each question. You may pass on a question.

TIME PERMITTED: 30 MINUTES

Question 1: Bob's flight leaves at 9:35 pm. The plane is in flight for 11 hours and 25 minutes. What time does Bob land?

Answer _____ am

Question 2: A local shop is offering 1 bouncy ball free with every 5 bouncy balls purchased. Jess pays the normal price for 30 bouncy balls. How many bouncy balls will she receive in total?

Answer _____

Question 3:

The sum of five consecutive numbers is 170. What is the lowest of the five numbers?

Answer _____

Question 4:

There are 30 lollies in a jar. Ben takes half. Steven takes a third of the remaining lollies. How many lollies are there left in the jar?

Answer _____

Question 5:

A bottle contains liquid. Natalia uses 20% of the liquid in one experiment and 50% of the remaining liquid in another experiment.

She then divides what is left of the liquid equally into two beakers. In each beaker there was 120mL.

How much liquid was originally in the bottle?

Answer _____ ml

Question 6: Jess thought of a 2-digit number between 18 and 39. The product of the digits is equal to double the sum of the digits. What number is Jess be thinking of?

Answer _____

Question 7:

What Number Comes Next In The Pattern?

1, 4, 8, 13, 19, 26

Answer _____

QUESTION 8: Jeff's bike moves forward 2 metres every time its front wheel makes a complete full turn. Jeff was riding his bike in a race. When he had finished $\frac{6}{8}$ of his race his wheel had made 6000 turns. How many metres was the entire race?

Answer _____m

QUESTION 9:

There are 5 people in my family, my mother, my father, my brother, my sister and myself. The names of the males are Sandy and Pat, and the females are named Sharon, Jennifer and Connie in no particular order. Pat is younger than I am. I am older than Connie. Sharon is younger than Jennifer.

Who am I?

Answer _____

QUESTION 10:

Paul's family has 31 pets. They have birds, fish, and cats. There are 4 cats to every 3 fish, and there are 4 fish to every bird. How many cats are there?

Answer _____

QUESTION 11:

If the radius of a circle is 3 centimetres. What is the area of the circle? ($A = \pi r^2$)
 $\pi = 3.14$ (rounded to the nearest whole number)

Answer _____cm²

QUESTION 12: The length of a rectangle is four times as long as its width. The area of the rectangle is 196 m^2 . What are the dimensions of the rectangle?

Answer _____

QUESTION 13:

What number comes next?

1, 1, 2, 3, 5, 8, 13, _____

Answer _____

QUESTION 14: I am a number between 15 and 30. If I am divided by 3, then multiplied by 9, then added by 17 and subtracted by 24 I am divisible by 8. What number am I?

Answer _____

QUESTION 15:

The product of 3 prime numbers is 2639. What are the 3 prime numbers?

Answer _____

QUESTION 16:

A human heart pumps about 80mls of blood per second. Approximately how much blood does the heart pump in an hour in mls?

Answer _____ mls

QUESTION 17:

In the forest there are a group of 7 pine trees. Tree 1 is 4.8m high. Tree 2 is 9.4m. Tree 3 is 9.5m. Tree 4 is 5.6m. Tree 5 is 5.3m. Tree 6 is 9.2m. Tree 7 is the sum of all the trees divided by 6. What is the height of Tree 7?

Answer _____ m

QUESTION 18:

How many 1.5cm^3 cubes fit into a cuboid that has a volume of 3cm by 5cm by 10cm?

Answer _____

Question 19: The numbers 4,5,6,7,8, and 9 are to be placed along the sides of this triangle so that each side adds to 17. What two numbers will be placed on the side of the triangle between 1 and 2?

Answer _____

Question 20:

There are 4 animals, a horse, turtle, duck and rabbit. The turtle runs 4 km per hour, the duck is 3.5 km per hour faster than the turtle, the rabbit is double the ducks speed and if you add all the animals' speeds together it equals 45.5km/hr. How fast is the horse?

Answer _____ km/hr

Question 21:

Simon can dig holes at 10 holes per minute. Every minute Chris can fill in 20% of Simon's holes with dirt. After an hour how many holes that Simon dug are still there?

Answer _____

Question 22:

When travelling along the road from A to D, you pass through towns B and C. Some distances in kilometres are given in the table.

How far is it from A to D?

Answer _____ km

Question 23: John spent 2 hours a day playing games, but on Sundays he plays 4 hours. What is the maximum amount of hours he could have played in July?

Answer _____

Question 24:

In a school merit awards system, a student with 3 bronze awards gets 1 silver award. A student with 3 silver awards gets 1 gold award. A student with 3 gold awards receives 1 medallion. Harry has 1 silver and 1 bronze award.

How many more bronze awards does Harry need to receive a medallion?

Answer _____

Question 25:

The individual scores for a test are 9, 2, X, 8, 5. The average score for the test is X. Find the value of X.

Answer _____

Mathswell 2014

Year 5&6 Problem Solving Answers

School _____

Time allowed 30minutes.

- Each team is allowed **2** attempts at a question.
- Teams receive each question one at a time.
- They may pass on a question, but they may **not go** back to that question.
- The team does **not need** to write the units for each question.
- The marker puts a tick or a cross in the correct column. If a team passes write a 'P' in the appropriate column.
- At the end of this section the marker adds the total of the correct responses (1st and 2nd attempts) and fills in the total box. Check the total in front of the team members. **Return this sheet to the organiser.**

Question	Answer	Attempt		Question	Answer	Attempt	
		1st	2nd			1st	2nd
1.	9:00			14.	21		
2.	36			15.	7, 13, 29		
3.	32			16.	288,000		
4.	10			17.	7.3		
5.	600			18.	100		
6.	36			19.	5,9 or 6,8		
7.	34			20.	19		
8.	16000			21.	480		

9.	Sharon			22.	8		
10.	16			23.	72		
11.	28 (must be 28)			24.	23		
12.	28 and 7			25.	6		
13.	21						

Total ____/25

Year 5&6 Multi-Choice Answers

2014 Mathswell

Question	Answer	Question	Answer
1.	B	16.	D
2.	C	17.	B
3.	C	18.	B
4.	C	19.	B
5.	A	20.	D
6.	D	21.	D
7.	B	22.	A
8.	A	23.	A
9.	B	24.	D
10.	D	25.	B
11.	D	26.	C

12.	D	27.	B
13.	C	28.	C
14.	B	29.	C
15.	C	30.	B

Mathswell 2014
Year 5&6 Multi-Choice Answers

School

Question	Answer	Marking	Question	Answer	Marking
1.			16.		
2.			17.		
3.			18.		

4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Total
