



**NEWCASTLE PERMANENT
PRIMARY SCHOOL MATHEMATICS COMPETITION
Wednesday 19 August 2020**

Time allowed: 45 minutes

Instructions:

1. When asked by your teacher, open this booklet and check that there are 35 questions.
2. Calculators, electronic devices, rulers, geometrical instruments or other aids are **NOT** permitted.
3. **NO** working is to be shown on your answer sheet. Working paper will be supplied by your teacher if required.
4. **All answers MUST be recorded in PENCIL on your answer sheet** (a B pencil or darker). Questions 1 to 33 are multiple choice. For questions 34 and 35 colour in the ovals to represent your answer.
5. When your teacher gives the signal, begin working on the problems. You have 45 minutes working time.
6. Marks will **NOT** be deducted for incorrect answers.
7. **Make sure that you complete the sections on the answer sheet for your name, gender, division, school name and five digit Mathematics Competition Code.**

SECTION A

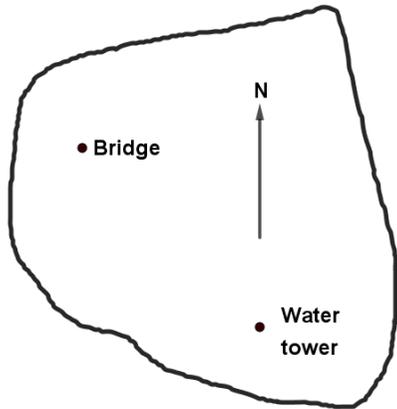
Each correct answer in this section is worth 2 marks.

1. What is the difference between 710 and 157 ?
(A) 553 (B) 563 (C) 653 (D) 867
2. How many letters of the word BATH have 2 lines of symmetry?
(A) 0 (B) 1 (C) 2 (D) 3
3. The number of minutes in 210 seconds is:
(A) 2.1 (B) 3.1 (C) 3.3 (D) 3.5
4. $3 + 4 \times 2 =$
(A) 9 (B) 11 (C) 14 (D) 24
5. A quadrilateral with only one pair of parallel sides is a:
(A) square (B) parallelogram
(C) kite (D) trapezium
6. A mass of 2 kilograms and 80 grams can be written as:
(A) 280 grams (B) 2 008 grams
(C) 2 080 grams (D) 2 800 grams
7. The product of 2, 3 and 5 is:
(A) 235 (B) 30 (C) 25 (D) 10
8. Which of the following is closest to 3.6 ?
(A) 3.06 (B) $3\frac{1}{2}$ (C) 3.69 (D) 3.7
9. When 3 138 is divided by 5 the remainder is:
(A) 0 (B) 1 (C) 2 (D) 3

10. A triangle has one angle of 70° and another of 15° . The triangle is:

- (A) obtuse angled (B) acute angled
(C) isosceles (D) right angled

11.



Which statement is correct?

- (A) The water tower is south-east of the bridge
(B) The water tower is south-west of the bridge
(C) The bridge is east of the water tower
(D) The bridge is north-east of the water tower

12. How many of the first 50 positive integers are square numbers?

- (A) 4 (B) 6 (C) 7 (D) 8

13. What is the date 10 days after Tuesday 25th June?

- (A) Friday 5th July (B) Friday 6th July
(C) Thursday 4th July (D) Thursday 5th July

14. Which of the following solids has 4 triangular faces and 1 other face?

- (A) triangular prism (B) triangular pyramid
(C) square prism (D) square pyramid

15. 50 boys and 50 girls were asked if they liked or disliked cricket, swimming and netball. The results are shown in the table below.

| | Boys | | Girls | |
|--------------|------|---------|-------|---------|
| | Like | Dislike | Like | Dislike |
| cricket (C) | 40 | 10 | 20 | 30 |
| swimming (S) | 30 | 20 | 35 | 15 |
| netball (N) | 25 | 25 | 30 | 20 |

Which of the following lists is in order of overall popularity?

- (A) C, S, N (B) S, N, C (C) S, C, N (D) N, S, C

SECTION B

Each correct answer in this section is worth 3 marks.

16. Fiona's new TV was advertised at a price of \$800 but she was given a 25% discount. How much did she pay for the TV?

- (A) \$775 (B) \$600 (C) \$400 (D) \$200

17. In a game a player rolls 5 dice and obtains a score by **adding any even numbers** but **subtracting any odd numbers**.

What would the score be if the dice showed 2, 5, 1, 4, 5 ?

- (A) -5 (B) -3 (C) 1 (D) 17

18. Which of the following numbers has 25 as a factor?

- (A) 1805 (B) 1815 (C) 1835 (D) 1875

19. Sylvie can run 100 metres in 14.7 seconds. Ella is 1.5 seconds slower than Sylvie, while Tania is 2.1 seconds faster than Ella.

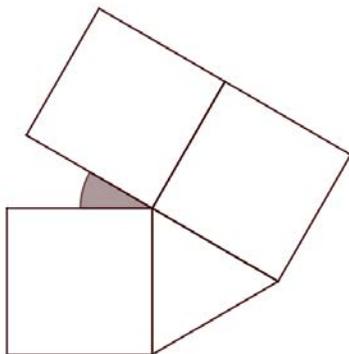
How many seconds does Tania take to run 100 metres?

- (A) 18.3 (B) 15.3 (C) 14.1 (D) 11.1

20. The lowest common multiple of 6 and 8 is:

- (A) 48 (B) 24 (C) 12 (D) 2

21. Samantha is paid \$6.00 per hour for baby-sitting, with the time rounded to the nearest half hour. How much does she receive for baby-sitting from 4.50 pm to 9.10 pm?
- (A) \$24 (B) \$26 (C) \$27 (D) \$30
22. The diagram shows 3 squares and an equilateral triangle meeting at a common vertex. What is the size of the shaded angle?

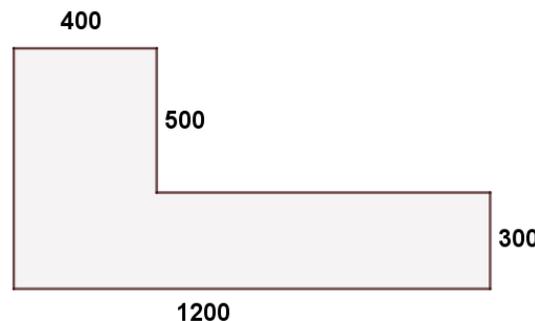


- (A) 20° (B) 30° (C) 40° (D) 45°
23. James bought 3 shirts for \$8 each and 2 caps for \$10 each. He paid with a \$50 note. Which of the following correctly shows the amount of change that he received?
- (A) $50 - 3 \times 8 + 2 \times 10$ (B) $50 - (3 \times 8 - 2 \times 10)$
 (C) $50 - 3 \times (8 + 2) \times 10$ (D) $50 - (3 \times 8 + 2 \times 10)$
24. The teacher made a number pattern by thinking of a starting number then using the rule “double the previous number and add 1”. The 4th number was 87. The starting number was:
- (A) between 0 and 4 (B) between 5 and 8
 (C) between 9 and 12 (D) greater than 12
25. $2\frac{3}{4} + 1\frac{1}{2} =$
- (A) $4\frac{1}{4}$ (B) $3\frac{4}{6}$ (C) $3\frac{1}{4}$ (D) $1\frac{1}{4}$

SECTION C

Each correct answer in this section is worth 4 marks.

26. A farm has the shape of two rectangles joined as shown in the diagram, which is not drawn to scale. The diagram also shows the lengths, in metres, of some of the sides of the farm.



The perimeter of the farm, in kilometres, is:

- (A) 2 km (B) 2.4 km (C) 4 km (D) 4.8 km
27. After Grandma picked the apricots from her tree, she used half of them to make apricot jam. The next day she used one quarter of the remaining apricots to make an apricot tart. After the tart was made there were 6 apricots remaining. How many apricots did Grandma pick from the tree?
- (A) 24 (B) 16 (C) 12 (D) 8
28. Ravi has 50 cards which are numbered from 1 to 50. He shuffles the cards then turns the top card over so that its number is displayed. What is the probability that the number displayed is not divisible by 5 and is also not divisible by 8 ?
- (A) $\frac{3}{10}$ (B) $\frac{8}{25}$ (C) $\frac{17}{25}$ (D) $\frac{7}{10}$

29. A piece of wood is a rectangular prism with volume of 120 cm^3 . It is 10 cm long and 3 cm wide. What is the total area, in cm^2 , of all faces of the wood?

- (A) 3600 (B) 164 (C) 133 (D) 82

30. In 1872, the Overland Telegraph Line between Darwin and Adelaide was completed. It has been described as ‘the greatest engineering feat carried out in 19th century Australia’.

It took almost 2 years to complete and covered approximately 3 200 kilometres of the harshest land in Australia.

It used approximately 36 000 telegraph poles to support the wire above the ground.

Ben said ‘they averaged more than 100 poles per day’.

Ella said ‘the average distance between each pair of poles is more than 100 metres’.

Who was correct?

- (A) both wrong (B) Ben correct, Ella wrong
(C) Ella correct, Ben wrong (D) both correct

31. The times for Ashlee’s last 3 kayak paddles were 3 hours 45 minutes, 2 hours 50 minutes and 3 hours 40 minutes. What is the average time of her last 3 paddles?

- (A) 2 hours 45 minutes (B) 3 hours 5 minutes
(C) 3 hours 25 minutes (D) 3 hours 45 minutes

32. A gardener needs to have 7 tonnes of soil delivered to her home. The landscape supply shop agrees to deliver the soil using their truck, which can carry 1.25 tonnes each trip.

The distance from the shop to the home is 6 kilometres.

It costs \$3.50 per kilometre for each **return** trip of the truck.

How much will it cost to move the soil?

- (A) \$126 (B) \$210 (C) \$216 (D) \$252

33. The sum of the digits of the number 2 001 is 3.
($2 + 0 + 0 + 1 = 3$).

How many numbers are there, between 1 000 and 10 000, which have a digit sum of 3?

- (A) 10 (B) 9 (C) 7 (D) 3

Questions 34 and 35 are not multiple choice.

For each of them, colour in the ovals to represent your answer in the space provided on the Answer Sheet.

34. What is the largest number, with 45 as a factor, which can be made using any 4 of the digits 1, 2, 3, 4, 5, 6, 7, 8, 9 without repeating any digit?

35. Each letter of the alphabet is given a **different** numerical value, always being a positive whole number. A value can then be calculated for any word by **multiplying the value of its letters**.

For example, if the letter A was given the value 6 and D was 5, then the word ADD would have a value of 150 (because $6 \times 5 \times 5 = 150$).

It is known that POPE has a value of 18

and PROPER has a value of 162.

What is the value of ROPE ?

THERE ARE NO MORE QUESTIONS.