



Education



REVISION

NEWCASTLE PERMANENT PRIMARY SCHOOL MATHEMATICS COMPETITION Wednesday 26 July 2023

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, as explained on the answer sheet.
5. When your teacher gives the instruction, 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, division, school name and five-digit Mathematics Competition Code.**

SECTION A

Each correct answer in this section is worth 2 marks.

1. $202 - 78 =$
(A) 124 (B) 134 (C) 136 (D) 280
2. How many minutes in $2\frac{1}{3}$ hours?
(A) 80 (B) 130 (C) 140 (D) 150
3. Sixteen thousand and seventy-nine is:
(A) 1679 (B) 16 079 (C) 16 709 (D) 16 790
4. 2.5 km is:
(A) 25 m (B) 250 m (C) 2500 m (D) 25 000 m
5. How many faces does a rectangular prism have?
(A) 6 (B) 5 (C) 4 (D) 3
6. $256.1 + 14.27 =$
(A) 398.8 (B) 270.37 (C) 270.28 (D) 39.88
7. What is the highest common factor of 45 and 150?
(A) 3 (B) 5 (C) 9 (D) 15
8. Which one of these is **not** a prime number?
(A) 2 (B) 11 (C) 19 (D) 27
9. 10 cards, each given a different number from 1 to 10, are shuffled and then one card is turned face up. What is the probability that it shows a

multiple of 3?

- (A) $\frac{1}{5}$ (B) $\frac{3}{10}$ (C) $\frac{3}{7}$ (D) 3

10. 25% of 88 is

- (A) 22 (B) 25 (C) 44 (D) 66

11. A very kind person decides to give \$100 every day to someone in need. **Approximately** how long will it take until \$100 000 has been donated?

- (A) 4 years (B) $3\frac{1}{4}$ years (C) $2\frac{3}{4}$ years (D) 2 years

12. $7 + 5 \times 3 =$

- (A) 15 (B) 22 (C) 36 (D) 105

13. \$107 is equally shared in 5 parts. How much in each part?

- (A) \$20.75 (B) \$21.20 (C) \$21.30 (D) \$21.40

14.



The best estimate for the size of the shaded angle is:

- (A) 150° (B) 180° (C) 210° (D) 270°

15. $12\,500 \div 500 =$

- (A) 125 (B) 121 (C) 120 (D) 25

SECTION B

Each correct answer in this section is worth 3 marks.

16. If 5 tickets to a concert cost \$135, how much would 6 tickets cost?

- (A) \$152 (B) \$162 (C) \$168 (D) \$172

17. When counting down by 4, starting at 17, the second negative number reached is:

- (A) -7 (B) -5 (C) -3 (D) -1

18. Sienna buys one ice-cream for \$5 and two cakes for \$7 each. She pays with a \$50 note. Which one of the following options shows the correct change in dollars?

- (A) $50 - 5 + 2 \times 7$ (B) $50 - (5 + 2 \times 7)$
(C) $50 - (5 + 7) \times 2$ (D) $50 - 5 + (2 \times 7)$

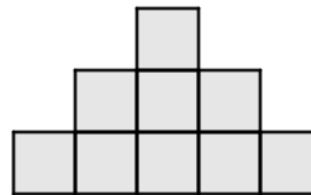
19. $37 \times 28 =$

- (A) 1036 (B) 1034 (C) 936 (D) 370

20. Which is the smallest of these fractions?

- (A) $\frac{1}{3}$ (B) $\frac{1}{4}$ (C) $\frac{1}{5}$ (D) $\frac{1}{6}$

21.



The shape is made of identical squares.
The area of the shape is 225 cm^2 .
The perimeter of the shape, in cm, is:

- (A) 20 (B) 25 (C) 80 (D) 90

22. On a number line, half-way between -18 and 12 is:
 (A) -6 (B) -3 (C) 3 (D) 6
23. In a game of AFL a team gets 6 points for kicking a 'goal' and 1 point for kicking a 'behind'.
 For example, one way to score 65 points is to kick 10 goals and 5 behinds $(10 \times 6) + (5 \times 1) = 65$, another way is 4 goals and 41 behinds $(4 \times 6) + (41 \times 1) = 65$.
 How many ways are there for a team to score 37 points?
 (A) 2 (B) 6 (C) 7 (D) 37
24. The teacher asked the class 3 questions.
- Question 1: What is 26 divided by 5?
- Question 2: How many 5-seat cars are needed to take 26 people to a picnic?
- Question 3: How many 5 kg bags can be filled if you have 26 kg of potatoes?
- Which of the following is correct?
- (A) The answers are all different.
 (B) Questions 1 and 2 have the same answer, 3 is different.
 (C) Questions 1 and 3 have the same answer, 2 is different.
 (D) All 3 questions have the same answer.
25. A number:
- is between 200 and 300, and
 - is a multiple of 5 but not a multiple of 10, and
 - has a remainder of 1 when divided by 3.
- How many such numbers are there?
 (A) 0 (B) 1 (C) 4 (D) 10

SECTION C

Each correct answer in this section is worth 4 marks.

26. Arabella is going for a ride on her bike to her grandmother's house. One quarter of the way to her destination she stops for a drink of water. She then rides a further 12 kilometres to her grandmother's house.
 How many kilometres did she ride?
 (A) 15 (B) 16 (C) 18 (D) 20
27. A family set out on a 5-day driving holiday in their car. They know that their car's petrol consumption is 7.5 litres per 100 km. They travelled a total of 2000 km on the holiday. On average, petrol cost \$1.80 per litre.
 What was the average petrol cost per day?
 (A) \$54 (B) \$53 (C) \$51.20 (D) \$51

28.

Table 1			Table 2		
+	P	N	×	T	G
V	B	J	N	B	H
U	K	A	D	I	Q

In the two tables above, numbers have been replaced by letters.

For example, table 1 shows that $N + V = J$

and table 2 shows that $T \times D = I$

What is the answer to $\frac{P+V}{A-U}$

- (A) T (B) J (C) H (D) G

29. $\frac{1}{6}$ of a number is 4.8
 What is $\frac{1}{5}$ of the number?

- (A) 0.8 (B) 4.0 (C) 5.76 (D) 28.8

30. It is a fact that $4830 = 2 \times 3 \times 5 \times 7 \times 23$
 Use this information to find two numbers that:

- multiply to give 4830 and
- have a difference of 1.

What is the sum of those two numbers?

- (A) 40 (B) 139 (C) 191 (D) 251

31. In a number pattern each number, apart from the first, is found by multiplying the previous number by 5 and then adding 2.7
 The third number in the pattern is 36.2
 What is the first number?

- (A) 7.7 (B) 1.2 (C) 0.9 (D) 0.8

32. 5 and 11 are a pair of prime numbers with a difference of 6.
 How many pairs of prime numbers, less than 50,
 have a difference of 6?

- (A) 6 (B) 7 (C) 8 (D) 9

Questions 33, 34 and 35 are not multiple choice.

On the Answer Sheet colour in the ovals to represent your answer.

Only give the number value of the answer, don't include any units of measurement such as degrees or m².

33. The following information is known about a triangle:

- It is **obtuse angled**.
- One angle is 42°.
- One of the angles is twice the size of one of the other angles.

Note that there is more than one triangle with these properties.

Write down the largest angle in each triangle that meets these requirements.

What is the sum of these largest angles?

34. It is possible to write 99 as the sum of a 2-digit prime number, a 2-digit square number and a 2-digit cube number in **three different ways**.

	2- digit prime number	2-digit square number	2-digit cube number	Total
1 st way				99
2 nd way				99
3 rd way				99

What is the sum of the three prime numbers?

35. Buildings take up 60% of the school grounds.
 Netball and tennis courts occupy $\frac{1}{4}$ of the remaining area.
 The rest is grass and footpaths, and the area of grass is 5 times the area of footpaths.
 The area of grass is 2000 square metres.
 What is the area, in square metres, of the entire school grounds?

THERE ARE NO MORE QUESTIONS.