



**THE NEWCASTLE PERMANENT  
HUNTER REGION  
PRIMARY MATHEMATICS COMPETITION**

**Wednesday, 3 September, 2003**

**Time allowed: 45 minutes**

**Instructions:**

- 1. Open this booklet when asked to by your teacher.**
- 2. Calculators, rulers, geometrical instruments or other aids are NOT permitted.**
- 3. Working paper will be supplied by your teacher if required.  
NO working is to be shown on your answer sheet.**
- 4. All answers MUST be recorded in PENCIL on your answer sheet.**
- 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.**

## SECTION A

Each question in this section is worth 2 marks.

- Which number is the smallest?  
(A) 426 103    (B) 432 205    (C) 447 218    (D) 423 605
- Which is “*three hundred and thirty thousand, three hundred and three*”?  
(A) 33 303    (B) 303 303    (C) 330 303    (D) 330 330
- The answer to  $707 + 596$  is:  
(A) 111    (B) 1203    (C) 1293    (D) 1303
- How many faces has a rectangular pyramid?  
(A) 4    (B) 5    (C) 6    (D) 8
- The Newcastle Permanent celebrates its centenary this year. In what year did the Newcastle Permanent first open for business?  
(A) 1903    (B) 1928    (C) 1953    (D) 1978
- What is the missing number in this pattern?  
7, 18, 29, 40, 51, \_\_, 73  
(A) 62    (B) 63    (C) 64    (D) 65
- $$\begin{array}{r} 4007 \\ \times \quad 9 \\ \hline \\ \hline \end{array}$$
  
(A) 3663    (B) 36 063    (C) 36 603    (D) 42 003

8. How many even numbers are there between 39 and 69?  
 (A) 15      (B) 14      (C) 12      (D) 10
9. The product of two numbers is 606. One of these numbers is 3. The other number is:  
 (A) 22      (B) 202      (C) 603      (D) 1818
10. A car travelling at 88 km/h travels how far in 4 hours?  
 (A) 22km      (B) 202km      (C) 322km      (D) 352km
11. Anne bought 5 pens at 97 cents each. How much change from \$10.00 should she be given?  
 (A) \$4.85      (B) \$5.15      (C) \$6.15      (D) \$6.85
12. What digit does ★ stand for in this subtraction?
- $$\begin{array}{r}
 4226 \\
 - 1\star43 \\
 \hline
 2483
 \end{array}$$
- (A) 1      (B) 2      (C) 7      (D) 8
13. A train left Broadmeadow at 1:49 pm and arrived at Wyong at twenty-five minutes to three that same afternoon. How many minutes did the journey take?  
 (A) 96      (B) 86      (C) 54      (D) 46
14. The perimeter of a rectangle is 24cm. The length of the rectangle is 8 cm. What is its width?  
 (A) 12 cm      (B) 6 cm      (C) 4 cm      (D) 3 cm
15. Which is the shortest measurement/  
 (A) 0.03 m      (B) 30 cm      (C) 300 mm      (D) 0.003 km

## SECTION B

Each question in this section is worth 3 marks.

16. If the distance from the centre of a circle to its circumference is 80 mm, then the circle's":

- (A) diameter is 160 mm.
- (B) diameter is 80 mm.
- (C) radius is 160 mm.
- (D) radius is 40 mm.

17. Kosta has two-thirds as many marbles as Billy. Kosta has 18 marbles. How many has Billy?

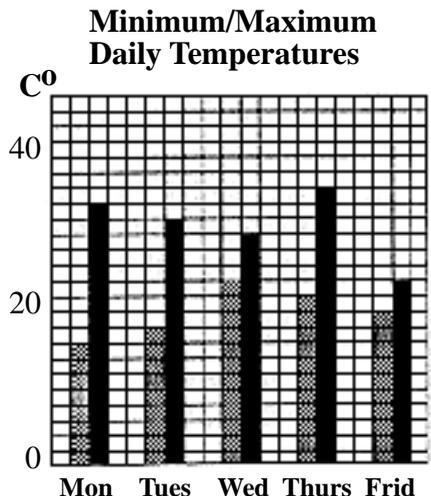
- (A) 6
- (B) 9
- (C) 12
- (D) 27

18. Which is the greatest?

- (A)  $\frac{3}{4}$
- (B) 72%
- (C) 0.7
- (D)  $\frac{37}{50}$

19. The graph shows the minimum and maximum temperatures for each day of a school week. Which day of that week had the highest minimum temperature?

- (A) Monday
- (B) Wednesday
- (C) Thursday
- (D) Friday



20. Another way of writing 47 tenths is:

- (A) 0.047
- (B) 0.47
- (C) 4.7
- (D) 470

21. The sum of a right-angle and an obtuse angle must be:

- (A) a reflex angle
- (B) an obtuse angle
- (C) a straight angle
- (D) and acute angle

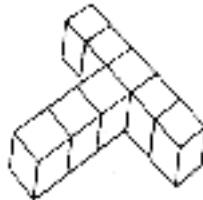
22. In this square, the sum of the numbers in each row equals the sum of the numbers in each column.

What is the number represented by ★ in the bottom left hand corner of this square?

69	97	5	33	61
93				65
17	25			
41				13
★				

- (A) 265      (B) 220      (C) 45      (D) 39

23. Eight separate one cubic centimetre cubes were glued together to make this model.



The surface area of this model is:

- (A)  $17 \text{ cm}^2$       (B)  $20 \text{ cm}^2$       (C)  $26 \text{ cm}^2$       (D)  $34 \text{ cm}^2$

24. Which is the best value?

- (A) 1 kg for \$3.30
- (B) 750 g for \$2.40
- (C) 300 g for 90 cents
- (D) 250 g for 85 cents

25. A vehicle travels 28 km in 35 minutes. How many km/h is this?

- (A) 40      (B) 48      (C) 50      (D) 55

## SECTION C

Each question in this section is worth 4 marks.

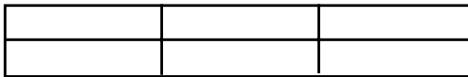
26. How many different rectangles with a perimeter of 26 cm could be drawn if their side length measurements were in “whole” centimetres? (Note: A 2 cm x 3 cm rectangle is to be regarded as the same as a 3 cm x 2 cm rectangle.)

(A) 2            (B) 6            (C) 7            (D) 13

27. The difference between increasing a number by 5% and decreasing it by 4% is 45. That number is:

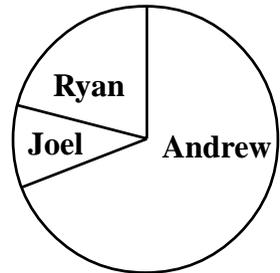
(A) 450            (B) 500            (C) 4500            (D) 5000

28. How many rectangles are there in this figure?



(A) 7            (B) 17            (C) 18            (D) 20

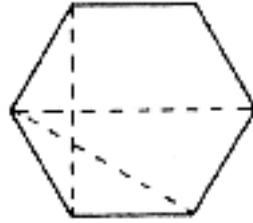
29. This graph shows how \$120.00 is shared amongst Andrew, Joel and Ryan.



Which statement is TRUE?

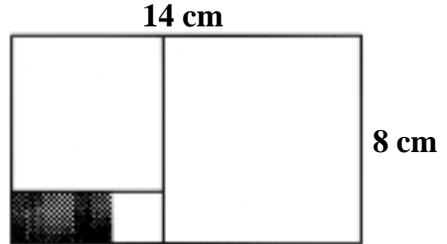
- (A) Ryan has more than \$40.00.  
(B) Together, Joel and Andrew have less than \$90.00.  
(C) Together, Ryan and Andrew have less than \$80.00.  
(D) Together, Ryan and Joel have more than \$30.00.
30. The average of a sequence of six consecutive multiples of three is 43.5. What is the largest number of that six number sequence?
- (A) 42            (B) 45            (C) 51            (D) 54

31. A diagonal is an interval which joins a pair of corners which are not adjacent. Three diagonals in this HEXAGON are shown by the dotted intervals. How many diagonals could be drawn in a regular OCTAGON?



- (A) 40      (B) 20      (C) 15      (D) 5

32. The 15 cm x 8 cm rectangle shown is made up of three blank squares and a shaded rectangle.



The area of the shaded rectangle is:

- (A)  $8 \text{ cm}^2$       (B)  $6 \text{ cm}^2$       (C)  $4 \text{ cm}^2$       (D)  $3 \text{ cm}^2$
33. If the shading pattern shown in Figures 1, 2, and 3 is continued for Figures 4, 5, 6 and so on, how many shaded squares would there be in Figure 9?

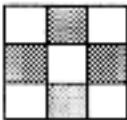


Figure 1

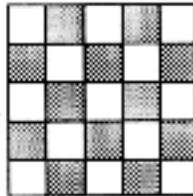


Figure 2

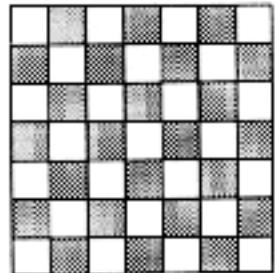


Figure 3

- (A) 60      (B) 61      (C) 180      (D) 181

**TURN OVER THE PAGE FOR  
QUESTIONS 34 AND 35.**

34. Five students sat for a test. What was the minimum percentage mark a student could have achieved if the average mark achieved by the five students was 85%?
- (A) 0%      (B) 5%      (C) 20%      (D) 25%
35. Because  $3^4 = 3 \times 3 \times 3 \times 3 = 81$ , then  $81^{0.25} = 3$ . Which of the following equals  $32^{0.2}$ ?
- (A) 2      (B) 6.4      (C) 64      (D) 1024

**THERE ARE NO MORE QUESTIONS**