

Name _____

Date _____

Stage 7 End-of-unit test 2

25 questions · 40 marks · calculators are not allowed · allow about 45 minutes

1 Write an expression for: 5 more than n . [1]

2 Write an expression for: x less than y . [1]

3 Work out the value of $3x + 2$ when $x = 7$. [1]

4 Work out the value of $5x - 2$ when $x = -3$. [2]

5 Simplify: $6x + 3y - 2x + y$. [2]

6 Simplify: $5a + 7 - 2a - 3$. [2]

7 Expand: $4(n + 3)$. [1]

8 Expand: $3(2g + h - 7)$. [2]

9 Expand and simplify: $2(x + 4) + 3(x + 1)$. [2]

10 Solve: $x - 3 = 12$. [1]

11 Solve: $2y + 4 = 16$. [2]

12 Solve: $4(x - 2) = 20$. [2]

13 Solve: $5x + 3 = 3x + 11$. [2]

14 Write in words what $x < -4$ means. [1]

15 What is the smallest integer that satisfies $x > 7$? [1]

- 16** What is the largest integer that satisfies $y < -2$? [1]

- 17** List all the integers that satisfy both $x > -3$ and $x < 2$. [2]

- 18** Write a formula for the perimeter P of a rectangle with length l and width w . Give the right-hand side only. [2]

- 19** Using $P = 2(l + w)$, a rectangle has $P = 30$ cm and $l = 9$ cm. Work out w , in cm. [2]

- 20** A rectangle has width x cm and length four times its width. Write a simplified expression for its perimeter, in cm. [2]

- 21** The angles of a triangle are x , $2x$ and $3x$ degrees. Find x . [2]

- 22** A taxi charges \$3 plus \$2 per kilometre. A journey cost \$23. How many kilometres was it? [2]

- 23** How many terms are there in the expression $4x + 3y - 7$? [1]

- 24** Which pair are like terms? [1]
☐ $3x$ and $3y$
☐ $5a$ and $2a$
☐ $4p$ and 4
☐ $2m$ and m^2
- 25** Three consecutive integers add up to 42. What is the smallest one? [2]

END OF TEST