

1. Rajen bought a laptop on terms where he paid a \$300 deposit and made monthly repayments of \$100 for 2 years. How much did he pay for the laptop?
A. \$400 B. \$2100 C. \$2400 D. \$2700
2. When factorised $9 - m^2$ is equal to
A. $3(3 - m^2)$ B. $(9 - m)(9 + m)$ C. $(m - 3)(m + 3)$ D. $(3 - m)(3 + m)$
3. Sugar is sold in four different sized bags. Which of the following gives the best value?
A. 1kg for \$5 B. 2 kg for \$12 C. 3 kg for \$15 D. 4 kg for \$16
4. The equation of a line which cuts the y -axis at 4 and the x -axis at 2 is
A. $y = -4x + 2$ B. $y = -2x - 4$ C. $y = 2x + 4$ D. $y = -2x + 4$
5. What is the time 57 minutes before 4.33 pm?
A. 5.30 pm B. 3.34 pm C. 3.35 pm D. 3.36 pm
6. Diana leaves home at noon, travelling West at 40 km/h. At 2.30 pm her husband leaves, taking the same route at 60 km/h. At what time will she overtake her?
A. 4.30pm B. 5.00pm C. 7.30pm D. 8.00pm
7. The gradient of the line $2x - y = 8$ is
A. -2 B. -1 C. 2 D. 8
8. If $x^2 - 4 = 0$ then
A. $x = 2$ only B. $x = -2$ only C. $x = \pm 2$ D. $x = \pm 4$
9. When factorised $x^2 - 4x + 4$ is equal to
A. $(x - 4)^2$ B. $(x + 2)^2$ C. $(x - 2)^2$ D. $(x + 4)^2$
10. What is the length of the diagonal of a rectangle with dimensions 6 cm by 8 cm?
A. 8.5 cm B. 9 cm C. 10 cm D. 14 cm

11. A line from a vertex of a triangle to the opposite side at 90° is called
A. the median B. an altitude C. the mediator D. the bisector
12. The point where medians of a triangle meet is called the
A. incentre B. centroid C. orthocentre D. circumcentre
13. What is the equation of the axis of symmetry of the function $y = x^2$?
A. $y = 0$ B. $x = 0$ C. $y = x$ D. $y = 2$
14. When 3 is subtracted from the product of x and 4, the result is 10.
The correct mathematical equation for the above is given by
A. $4x - 10 = 3$ B. $4x - 3 = 10$ C. $4(x - 3) = 10$ D. $3 - 4x = 10$
15. At a party, every attendee shakes hands with every other attendee once. If 6 people are at the party, how many handshakes take place?
A. 6 B. 15 C. 25 D. 30
16. At a sale, 10% discount is offered on all marked prices. Maya bought a dress at this sale for \$45. How much did she save?
A. \$5 B. \$15 C. \$25 D. \$50
17. If a 8-inch diameter circular pizza serves two students, how many students should two 12-inch diameter circular pizzas serve?
A. 9 B. 10 C. 11 D. 12
18. There are 15 chickens in a pen with sufficient food for 20 days. How long would the food last if 3 chickens are removed from the pen?
A. 25 days B. 27 days C. 30 days D. 35 days
19. A train 500m long is travelling at 20m/s. How long, in seconds, will it take to pass completely through a 1000 m tunnel?
A. 75 B. 50 C. 40 D. 25
20. When we subtract $3a - 4b$ from $2a + 5b$ the answer is
A. $9b - a$ B. $b - a$ C. $a - 9b$ D. $5a + b$

21. Five positive numbers have a mean of 5, a median of 5 and just one mode of 8. The range is
- A. 4 B. 5 C. 6 D. 7
22. If you begin reading at the top of page x of your favourite story book and stop reading at the bottom of page y , the number of pages you have read is
- A. $x - y$ B. $y - x$ C. $y - x - 1$ D. $y - x + 1$
23. A cube of edge length 3 units is painted. It is then cut into 27 one-unit cubes. How many faces of the one-unit cubes are not painted?
- A. 27 B. 54 C. 100 D. 108
24. $\sqrt{36a^2b^2}$ is equal to
- A. $\pm 6ab$ B. $\pm 36ab$ C. $36ab$ D. $6ab$
25. Tom is 3 years older than Anna. The sum of their ages is 15. If Tom age is x years, which of the following equations is correct?
- A. $x = 15 - 3$ B. $x + (x + 3) = 15$ C. $x + 3x = 15$ D. $x + (x - 3) = 15$
26. The greatest number of Mondays which can occur in a 45 day period is
- A. 5 B. 6 C. 7 D. 8
27. Each child in a family has at least five brothers and at least six sisters. What is the smallest number of children the family could have?
- A. 10 B. 11 C. 13 D. 14
28. Ten friends ate at a restaurant and agreed to share the bill equally. Anna forgot her money, so each of her nine friends paid an extra \$4 to cover her portion of the total bill. What was the total bill?
- A. \$36 B. \$40 C. \$360 D. \$400
29. If the cost of 2 bottles of juice, 3 packets of biscuits and 1 packet of chips is \$12, what is the cost of 4 bottles of juice, 6 packets of biscuits and 2 packets of chips?
- A. \$20 B. \$25 C. \$24 D. \$30
30. In 200 m race, Anna covers the distance in 72 seconds and Bina in 90 seconds. In this race Anna beats Bina by
- A. 50 m B. 45 m C. 40 m D. 30 m