

1. The value of $|2 - 3 \times 5|$ is
A. 5 B. 10 C. 13 D. 30
2. How many integers x satisfy the inequality: $-2 \leq x < 30$?
A. 29 B. 31 C. 32 D. 33
3. If $a = -2$, the value of $a^2 + 5$ is
A. 1 B. 3 C. 8 D. 9
4. \$10 increased in the ratio 2:3 is equal to
A. \$15 B. \$16 C. \$18 D. \$30
5. The cash price of a laptop was \$2000. Rajen bought the laptop on terms where he paid a \$300 deposit and made monthly repayments of \$100 for 2 years. How much would Rajen have saved if he had bought it for cash?
A. \$50 B. \$100 C. \$400 D. \$700
6. The SI unit used to measure mass is
A. grams B. kilograms C. tonnes D. pounds
7. What is the time 58 minutes after 4.33 pm?
A. 5.30 pm B. 5.31 pm C. 5.32 pm D. 5.33 pm
8. This year Mohammed earns \$5 per hour at his job. For next year, this rate will increase by 10%. His new hourly rate will therefore be
A. \$5.10 B. \$5.20 C. \$5.40 D. \$5.50
9. A car takes 4 hours to complete a journey when travelling at 40 km/h. How long, in hours, would the same journey take if the car were travelling at 80 km/h?
A. 1 B. 2 C. 3 D. 8
10. 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

11. A water tank when 40% full contains 20 litres of water. What is the total capacity of the tank ?
- A. 50 L B. 40 L C. 48 L D. 32 L
12. A shopkeeper made \$9 profit by selling an item for \$54. His percentage profit was
- A. 0.2% B. 16.67% C. 20% D. 45%
13. When written in standard form, 1500 is equal to
- A. 1.5×10^{-3} B. 1.5×10^3 C. 15×10^2 D. 150×10^1
14. The surface area of a sphere of radius 3 cm, in cm^2 , is
- A. 36π B. 30π C. 26π D. 9π
15. The angle of a sector of a circle of radius 6 cm is 60° . The area of a sector in cm^2 is
- A. 3π B. 4π C. 5π D. 6π
16. The volume of a right square based pyramid, with a base side length of 10 cm and height 15 cm is
- A. 300 cm^3 B. 400 cm^3 C. 500 cm^3 D. 600 cm^3
17. When factorised $m^2 - 3m$ is equal to
- A. $m^2(1 - 3m)$ B. $m(m - 3)$ C. $m(1 - 3m)$ D. $m^2(m - 3)$
18. When we subtract $3a - 4b$ from $2a - 5b$ the answer is
- A. $-a - b$ B. $-a - 9a$ C. $9b - a$ D. $5a + b$
19. $\frac{2x}{3} - \frac{x}{6} =$
- A. $\frac{5x}{6}$ B. $\frac{x}{6}$ C. $\frac{x}{2}$ D. $\frac{5x}{18}$
20. $a^0 + 3^0 + 5a^0 =$
- A. 3 B. 7 C. 9 D. 11

21. $2a^{-3} =$

A. $\frac{1}{2a^3}$

B. $\frac{2}{a^3}$

C. $\frac{1}{a^3}$

D. $\frac{a^3}{2}$

22. The value of $p^6 \times p^2 \div p$ is

A. p^7

B. p^8

C. p^9

D. p^{12}

23. When simplified $(x^3)^4$ is equal to

A. x^7

B. x^{12}

C. x^{15}

D. x^{34}

24. The value of x that makes the equation $7(x - 1) = 14$ true, is

A. 3

B. 6

C. 8

D. 22

25. The solution set for $-2x < 4$ is best given by

A. $x > -2$

B. $x < -2$

C. $x > 2$

D. $x < 2$

26. Which expression correctly shows h as the subject of $V = \frac{1}{3}\pi r^2 h$

A. $h = \frac{3V}{\pi r^2}$

B. $h = \frac{V}{3\pi r^2}$

C. $h = \frac{V}{\pi r^2}$

D. $h = 3V - \pi r^2$

27. $\frac{1}{3}$ of the children in Year 9A class are girls. If there are 18 boys, how many girls are there in Year 9A?

A. 6

B. 7

C. 8

D. 9

28. A meal for 4 people uses 2 eggs. How many eggs are needed if the meal is made for 6 people?

A. 2

B. 3

C. 4

D. 6

29. Successive discounts of 20% and 50% are equivalent to a single discount of

A. 15%

B. 35%

C. 50%

D. 60%

30. If 3 men can complete a job in 10 days then 5 men can complete the same job in

A. 4 days

B. 5 days

C. 6 days

D. 24 days