

- Q1. The sum of five consecutive odd numbers is 95. What is the smallest number?
- Q2. Find the number if:
- (a) Twice a number plus five is the same as five times the number minus sixteen.
 - (b) The sum of a number and nine when multiplied by six equals three times the sum of fourteen and the number.
 - (c) Forty three minus four times a number equals seven divided into the sum of nine times the number and five.
 - (d) A number divided by three, plus nine equals twice the number minus sixteen.
- Q3. (a) A woman is five times as old as her grandson. If she is sixty years older than the boy, what are their ages?
- (b) When Susan was born her aunt was eighteen years old. Now her aunt is three times as old as Susan. What are their ages?
- (c) A father is six times as old as his son. Two years ago he was eight times as old. Find the son's age.
- Q4. The hire of a car is \$45 per day plus 12 c per kilometre. If the total cost of hiring was \$87, how many kilometres were driven?
- Q5. Bill, James and Tony are given \$100 as reward for returning a lost wallet. They agree that Tony should get four times as much as Bill who gets three times as much as James. What amount does each boy receive?
- Q6. Michael saves all his 20 c and 50 c coins. When he counts then he finds he has 68 coins amounting to \$25.30. How many of each type of coin does he have?
- Q7. Greg bats in seven cricket matches. In the eighth match he makes 9 runs and his average decreases by one. How many runs has he made in all?
- Q8. Given the formula $S = \frac{a(r^n - 1)}{r - 1}$, find S when:
- (a) $a = 3, r = 5, n = 5$
 - (b) $a = 16, r = 3, n = 6$
 - (c) $a = 5, r = 2, n = 10$
 - (d) $a = 10, r = 4, n = 12$
- Q9. One bottle holds 250 mL more than another. If the smaller is three quarters full it holds as much as the larger one when it is half full. What is the capacity of each bottle?

Level 5 — Equations (ANSWERS)

- Q1. 15, 17, 19, 21 and 23
- Q2. (a) 7 (b) -4 (c) 8 (d) 15
- Q3. (a) 15 and 75 (b) 9 and 27 (c) 7
- Q4. 350 km
- Q5. James \$6.25, Bill \$18.75, and Tony \$75.
- Q6. 39 50 c coins and 29 20 c coins.
- Q7. 128 runs
- Q8. (a) $S = 2343$ (b) $S = 5824$ (c) $S = 5115$ (d) $S = 55\,924\,050$
- Q9. 500 mL, 750 mL