

CLASS 7

MATHS

EXTRA QUESTIONS

Extra Questions for Class 7 Maths Chapter 15: Finding the Unknown

Fresh practice questions for Class 7 Maths Chapter 15 "Finding the Unknown", reinforcing equation-solving and word problems.

Fresh practice questions for Class 7 Maths Chapter 15 “Finding the Unknown”, reinforcing equation-solving and word problems.

Q1.

Solve: $5(x - 3) = 2x + 6$

Answer: $5x - 15 = 2x + 6 \Rightarrow 3x = 21 \Rightarrow x = 7$. Check: $5(7 - 3) = 20$; $2(7) + 6 = 20$ ✓

Q2. Assertion-Reason

Assertion (A): The equation $x + 7 = x + 2$ has no solution.

Reason (R): Subtracting x from both sides gives $7 = 2$, which is always false.

Answer: Both A and R are true, and R correctly explains A.

Q3.

A number decreased by 15 is equal to twice the number decreased by 40. Find the number.

Answer: $x - 15 = 2x - 40 \Rightarrow 25 = x \Rightarrow x = 25$. Check: $25 - 15 = 10$; $2(25) - 40 = 10$ ✓

Q4. Spot the Error

A student solves $3x + 4 = 19$ as: “ $3x = 19 + 4 = 23$, so $x = 23/3$.” What went wrong?

Answer: The student added 4 instead of subtracting it when moving it to the other side. Correct working: $3x + 4 = 19 \Rightarrow 3x = 19 - 4 = 15 \Rightarrow x = 5$. Check: $3(5) + 4 = 19$ ✓

Q5.

The sum of three consecutive integers is 72. Find the integers.

Answer: Let the integers be $x, x+1, x+2$. $x + (x+1) + (x+2) = 72 \Rightarrow 3x + 3 = 72 \Rightarrow 3x = 69 \Rightarrow x = 23$. The integers are **23, 24, 25**. Check: $23 + 24 + 25 = 72$ ✓

Q6. HOTS

A father’s age is 4 times his son’s age. In 5 years, the father will be 3 times as old as his son will be then. Find their present ages.

Answer: Let son’s age = x , father’s age = $4x$. In 5 years: $4x + 5 = 3(x + 5) \Rightarrow 4x + 5 = 3x + 15 \Rightarrow x = 10$. Son = **10 years**, father = $4(10) =$ **40 years**. Check: in 5 years, son = 15, father = 45 = 3×15 ✓

Q7.

Write an equation for: “7 less than 3 times a number is 20,” then solve it.

Answer: $3x - 7 = 20 \Rightarrow 3x = 27 \Rightarrow x = 9$. Check: $3(9) - 7 = 20$ ✓

Q8.

Two numbers differ by 8. Twice the smaller number equals the larger number plus 5. Find both numbers.

Answer: Let the smaller = x , larger = $x + 8$. $2x = (x + 8) + 5 \Rightarrow 2x = x + 13 \Rightarrow x = 13$. Smaller = **13**, larger = **21**.
Check: $2(13) = 26$; $21 + 5 = 26$ ✓

Q9.

Solve: $(2x - 1)/3 = 5$

Answer: $2x - 1 = 15 \Rightarrow 2x = 16 \Rightarrow x = 8$. Check: $(16 - 1)/3 = 5$ ✓

Q10.

Explain, in your own reasoning, why doing the same operation to both sides of an equation always keeps it balanced (referring back to the balance-scale idea from the start of the chapter).

Answer: An equation is like a balanced scale — both sides represent the same total value. If you add, subtract, multiply, or divide both sides by the same amount, both sides change by the same proportion, so they remain equal to each other — the balance is preserved. This is why solving an equation always involves performing identical operations on both sides until the unknown is isolated.

See also: [NCERT Solutions for Class 7 Maths Chapter 15](#)

Quick revision: [Revision Notes for Class 7 Maths Chapter 15](#)