

Simple Equations (on Integers)

MCQ Test, Set 02

Time: 30 minutes

Maximum marks: 25

Name: _____ Class: _____ Date: _____

1. There are 25 questions. Each has exactly one correct answer: choose A, B, C or D.
2. Each correct answer carries 1 mark. There is no negative marking.
3. The key sheet and worked solutions are at the end of this test.

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|-----|---|-----------------------|--------------------|-----------------|----------------------|
| 1. | If $x + 63 = -91$, then $x =$ | A. 28 | B. -28 | C. -154 | D. 154 |
| 2. | If $x + 40 = 24$, then $x =$ | A. 64 | B. -16 | C. 16 | D. -64 |
| 3. | Solve $x - 83 = -24$. Then $x =$ | A. 59 | B. -107 | C. 107 | D. -59 |
| 4. | The solution of $x - 7 = 62$ is | A. 69 | B. 55 | C. -55 | D. -69 |
| 5. | The solution of $x \times 7 = 238$ is | A. 340 | B. 231 | C. 1666 | D. 34 |
| 6. | The solution of $\frac{x}{5} = 144$ is | A. 720 | B. 139 | C. 149 | D. $\frac{144}{5}$ |
| 7. | Which of the following equations has the solution $x = 4$? | A. $x + 4 = -8$ | B. $x - 4 = 8$ | C. $x - 4 = -8$ | D. $x + 4 = 8$ |
| 8. | Which of the following equations has the solution $x = 686$? | A. $\frac{x}{7} = 98$ | B. $x + 7 = 98$ | C. $x - 7 = 98$ | D. $x \times 7 = 98$ |
| 9. | If $x + 28881 = 120504$, then $x =$ | A. 108383 | B. -91623 | C. 91623 | D. 149385 |
| 10. | Solve $x \times 33 = 13299$. Then $x =$ | A. 430 | B. 43 | C. 403 | D. 4030 |
| 11. | If $\frac{x}{-6} = 179$, then $x =$ | A. $-\frac{179}{6}$ | B. $\frac{179}{6}$ | C. 1074 | D. -1074 |

12. Solve $\frac{x}{-9} = -223$. Then $x =$
A. $\frac{223}{9}$ B. 2007 C. $-\frac{223}{9}$ D. -2007
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13. The solution of $4x + 150 = 158$ is
A. 77 B. 8 C. -2 D. 2
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14. The solution of $6x - 67 = 125$ is
A. 32 B. 192 C. $\frac{29}{3}$ D. -32
-
15. If $\frac{x}{9} + 66 = 44$, then $x =$
A. 990 B. -198 C. 198 D. $-\frac{22}{9}$
-
16. Solve $\frac{5x}{2} + 34 = 89$. Then $x =$
A. $\frac{275}{2}$ B. 22 C. 110 D. $\frac{246}{5}$
-
17. The solution of $\frac{8x}{9} - 7 = 1$ is
A. $\frac{64}{9}$ B. 72 C. $-\frac{27}{4}$ D. 9
-
18. Solve $9x - 31 = -247 - 9x$. Then $x =$
A. 12 B. $-\frac{139}{9}$ C. -216 D. -12
-
19. The solution of $6x - 7 + 8x = 33 + 9x$ is
A. $\frac{26}{5}$ B. 8 C. -8 D. $-\frac{40}{3}$
-
20. If $5x + 131 = 52 + 6x$, then $x =$
A. 79 B. -183 C. $-\frac{79}{11}$ D. -79
-
21. The solution of $42 - 5x = 32$ is
A. -2 B. $-\frac{74}{5}$ C. 2 D. -10
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22. The sum of two integers is -198 . If one of them is -894 , the other is
A. -1092 B. 696 C. -696 D. 1092
-
23. What number should be added to 257 to get -274 ?
A. -17 B. 17 C. -531 D. 531
-
24. What number should be subtracted from 15 to get 4?
A. 19 B. -19 C. 11 D. -11
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25. The difference of two integers is 87. If the larger of them is -84 , the smaller is
A. 3 B. -3 C. 171 D. -171
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Key sheet

1. C	2. B	3. A	4. A	5. D
6. A	7. D	8. A	9. C	10. C
11. D	12. B	13. D	14. A	15. B
16. B	17. D	18. D	19. B	20. A
21. C	22. B	23. C	24. C	25. D

Solutions

1. If $x + 63 = -91$, then $x =$

$$x + 63 = -91$$

$$\Rightarrow x = -91 - 63$$

$$\Rightarrow x = -154$$

Ans: (C) -154

2. If $x + 40 = 24$, then $x =$

$$x + 40 = 24$$

$$\Rightarrow x = 24 - 40$$

$$\Rightarrow x = -16$$

Ans: (B) -16

3. Solve $x - 83 = -24$. Then $x =$

$$x - 83 = -24$$

$$\Rightarrow x = -24 + 83$$

$$\Rightarrow x = 59$$

Ans: (A) 59

4. The solution of $x - 7 = 62$ is

$$x - 7 = 62$$

$$\Rightarrow x = 62 + 7$$

$$\Rightarrow x = 69$$

Ans: (A) 69

5. The solution of $x \times 7 = 238$ is

$$x \times 7 = 238$$

$$\Rightarrow x = \frac{238}{7}$$

$$\Rightarrow x = 34$$

Ans: (D) 34

6. The solution of $\frac{x}{5} = 144$ is

$$\frac{x}{5} = 144$$

$$\Rightarrow x = 144 \times 5$$

$$\Rightarrow x = 720$$

Ans: (A) 720

7. Which of the following equations has the solution $x = 4$?

Solve each one:

$$x + 4 = 8 \Rightarrow x = 8 - 4 = 4$$

$$x - 4 = 8 \Rightarrow x = 8 + 4 = 12$$

$$x + 4 = -8 \Rightarrow x = -8 - 4 = -12$$

$$x - 4 = -8 \Rightarrow x = -8 + 4 = -4$$

Only $x + 4 = 8$ gives $x = 4$.

Ans: (D) $x + 4 = 8$

8. Which of the following equations has the solution $x = 686$?

Solve each one:

$$x + 7 = 98 \Rightarrow x = 98 - 7 = 91$$

$$x - 7 = 98 \Rightarrow x = 98 + 7 = 105$$

$$x \times 7 = 98 \Rightarrow x = \frac{98}{7} = 14$$

$$\frac{x}{7} = 98 \Rightarrow x = 98 \times 7 = 686$$

Only $\frac{x}{7} = 98$ gives $x = 686$.

Ans: (A) $\frac{x}{7} = 98$

9. If $x + 28881 = 120504$, then $x =$

$$x + 28881 = 120504$$

$$\Rightarrow x = 120504 - 28881$$

$$\text{Column subtraction: } 120504 - 28881 = 91623$$

$$\Rightarrow x = 91623$$

Ans: (C) 91623

10. Solve $x \times 33 = 13299$. Then $x =$

$$x \times 33 = 13299$$

$$\Rightarrow x = \frac{13299}{33}$$

$$\text{Long division: } 132 \div 33 = 4, \text{ remainder } 0; 9 \div 33 = 0, \text{ remainder } 9; 99 \div 33 = 3, \text{ remainder } 0$$

$$\Rightarrow x = 403$$

Ans: (C) 403

11. If $\frac{x}{-6} = 179$, then $x =$

$$\frac{x}{-6} = 179$$

$$\Rightarrow x = 179 \times (-6)$$

$$+ \times - = -$$

$$\Rightarrow x = -1074$$

Ans: (D) -1074

12. Solve $\frac{x}{-9} = -223$. Then $x =$

$$\frac{x}{-9} = -223$$

$$\Rightarrow x = (-223) \times (-9)$$

$$- \times - = +$$

$$\Rightarrow x = 2007$$

Ans: (B) 2007

13. The solution of $4x + 150 = 158$ is

$$4x + 150 = 158$$

$$\Rightarrow 4x = 158 - 150$$

$$\Rightarrow 4x = 8$$

$$\Rightarrow x = \frac{8}{4}$$

$$\Rightarrow x = 2$$

Ans: (D) 2

14. The solution of $6x - 67 = 125$ is

$$6x - 67 = 125$$

$$\Rightarrow 6x = 125 + 67$$

$$\Rightarrow 6x = 192$$

$$\Rightarrow x = \frac{192}{6}$$

$$\Rightarrow x = 32$$

Ans: (A) 32

15. If $\frac{x}{9} + 66 = 44$, then $x =$

$$\frac{x}{9} + 66 = 44$$

$$\Rightarrow \frac{x}{9} = 44 - 66$$

$$\Rightarrow \frac{x}{9} = -22$$

$$\Rightarrow x = -22 \times 9$$

$$\Rightarrow x = -198$$

Ans: (B) -198

16. Solve $\frac{5x}{2} + 34 = 89$. Then $x =$

$$\frac{5x}{2} + 34 = 89$$

$$\Rightarrow \frac{5x}{2} = 89 - 34$$

$$\Rightarrow \frac{5x}{2} = 55$$

$$\Rightarrow 5x = 55 \times 2$$

$$\Rightarrow 5x = 110$$

$$\Rightarrow x = \frac{110}{5}$$

$$\Rightarrow x = 22$$

Ans: (B) 22

17. The solution of $\frac{8x}{9} - 7 = 1$ is

$$\begin{aligned}\frac{8x}{9} - 7 &= 1 \\ \Rightarrow \frac{8x}{9} &= 1 + 7 \\ \Rightarrow \frac{8x}{9} &= 8 \\ \Rightarrow 8x &= 8 \times 9 \\ \Rightarrow 8x &= 72 \\ \Rightarrow x &= \frac{72}{8} \\ \Rightarrow x &= 9\end{aligned}$$

Ans: (D) 9

18. Solve $9x - 31 = -247 - 9x$. Then $x =$

$$\begin{aligned}9x - 31 &= -247 - 9x \\ \Rightarrow 9x + 9x &= -247 + 31 \\ \Rightarrow 18x &= -216 \\ \Rightarrow x &= \frac{-216}{18} \\ \Rightarrow x &= -12\end{aligned}$$

Ans: (D) -12

19. The solution of $6x - 7 + 8x = 33 + 9x$ is

$$\begin{aligned}6x - 7 + 8x &= 33 + 9x \\ \Rightarrow 14x - 7 &= 33 + 9x \\ \Rightarrow 14x - 9x &= 33 + 7 \\ \Rightarrow 5x &= 40 \\ \Rightarrow x &= \frac{40}{5} \\ \Rightarrow x &= 8\end{aligned}$$

Ans: (B) 8

20. If $5x + 131 = 52 + 6x$, then $x =$

$$\begin{aligned}5x + 131 &= 52 + 6x \\ \Rightarrow 5x - 6x &= 52 - 131 \\ \Rightarrow (-1)x &= -79 \\ \Rightarrow x &= \frac{-79}{-1} \\ (- \div - &= +) \\ \Rightarrow x &= 79\end{aligned}$$

Ans: (A) 79

21. The solution of $42 - 5x = 32$ is

$$42 - 5x = 32$$

$$\Rightarrow -5x = 32 - 42$$

$$\Rightarrow -5x = -10$$

$$\Rightarrow x = \frac{-10}{-5}$$

$$(- \div - = +)$$

$$\Rightarrow x = 2$$

Ans: (C) 2

22. The sum of two integers is -198 . If one of them is -894 , the other is

Let the other integer be x .

$$x + (-894) = -198$$

$$\Rightarrow x = -198 - (-894)$$

$$\Rightarrow x = -198 + 894$$

$$\Rightarrow x = 696$$

Ans: (B) 696

23. What number should be added to 257 to get -274 ?

Let the number be x .

$$257 + x = -274$$

$$\Rightarrow x = -274 - 257$$

$$\Rightarrow x = -531$$

Ans: (C) -531

24. What number should be subtracted from 15 to get 4?

Let the number be x .

$$15 - x = 4$$

$$\Rightarrow -x = 4 - 15$$

$$\Rightarrow -x = -11$$

$$\Rightarrow x = 11$$

Ans: (C) 11

25. The difference of two integers is 87. If the larger of them is -84 , the smaller is

Let the smaller integer be x .

Larger $-$ smaller $=$ difference

$$-84 - x = 87$$

$$\Rightarrow -x = 87 + 84$$

$$\Rightarrow -x = 171$$

$$\Rightarrow x = -171$$

Ans: (D) -171
