EXPRESSWALA ACADEMY

Simple Equations (on Integers)

MCQ Test, Set 04

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.

1. The solution of $x + 89 = -50$ is

A. -39 **B.** 139 **C.** 39 **D.** -139

2. Solve $x + 7 = 55$. Then $x =$

A. -48 **B.** 48 **C.** 62 **D.** -62

3. The solution of $x - 29 = -32$ is

A. -3 **B.** 61 **C.** -61 **D.** 3

4. Solve $x - 32 = 3$. Then $x =$

A. -29 **B.** 29 **C.** 35 **D.** -35

5. Solve $x \times 6 = 282$. Then $x =$

A. 47 **B.** 1692 **C.** 276 **D.** 470

6. The solution of $\frac{x}{3} = 137$ is

A. 140 **B.** $\frac{137}{3}$ **C.** 134 **D.** 411

7. Which of the following equations has the solution $x = 1$?

A. $x - 40 = -39$ **B.** $x + 40 = 39$ **C.** $x + 40 = -39$ **D.** $x - 40 = 39$

8. Which of the following equations has the solution $x = 30$?

A. $x - 9 = 270$ **B.** $\frac{x}{9} = 270$ **C.** $x \times 9 = 270$ **D.** $x + 9 = 270$

9. The solution of $x + 70276 = 152021$ is

A. 122255 **B.** 222297 **C.** 81745 **D.** -81745

10. The solution of $x \times 37 = 150923$ is

A. 40790 **B.** 4079 **C.** 479 **D.** 4709

11. The solution of $\frac{x}{-13} = 48$ is

A. $\frac{48}{13}$ **B.** -624 **C.** $-\frac{48}{13}$ **D.** 624

12. If $\frac{x}{-11} = -46$, then $x =$

A. $\frac{46}{11}$ **B.** $-\frac{46}{11}$ **C.** 506 **D.** -506

13. The solution of $5x + 15 = 90$ is

A. 75 **B.** -15 **C.** 15 **D.** 21

14. If $5x - 11 = -151$, then $x =$

A. -28 **B.** $-\frac{162}{5}$ **C.** -140 **D.** 28

15. If $\frac{x}{7} + 71 = 46$, then $x =$

A. -175 **B.** 819 **C.** 175 **D.** $-\frac{25}{7}$

16. Solve $\frac{7x}{8} + 29 = 71$. Then $x =$

A. $\frac{147}{4}$ **B.** 48 **C.** 336 **D.** $\frac{800}{7}$

17. The solution of $\frac{9x}{8} - 29 = 25$ is

A. 48 **B.** $-\frac{32}{9}$ **C.** 432 **D.** $\frac{243}{4}$

18. The solution of $6x - 39 = -75 - 6x$ is

A. 3 **B.** -36 **C.** $-\frac{19}{2}$ **D.** -3

19. The solution of $2x - 16 + 5x = -52 + 3x$ is

A. 9 **B.** -17 **C.** 36 **D.** -9

20. Solve $5x + 120 = 389 + 6x$. Then $x =$

A. -509 **B.** -269 **C.** 269 **D.** $\frac{269}{11}$

21. The solution of $22 - 2x = 14$ is

A. -8 **B.** -18 **C.** 4 **D.** -4

22. The sum of two integers is -932. If one of them is -644, the other is

A. -1576 **B.** 1576 **C.** -288 **D.** 288

23. What number should be added to 191 to get 227?

A. -36 **B.** 418 **C.** -418 **D.** 36

24. What number should be subtracted from -26 to get -138?

A. -164 **B.** 112 **C.** 164 **D.** -112

25. The difference of two integers is 88. If the smaller of them is 117, the larger is

A. -205 **B.** 29 **C.** -29 **D.** 205

Key sheet

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

Solutions

1. The solution of $x + 89 = -50$ is

$x + 89 = -50$

$\Rightarrow x = -50 - 89$

$\Rightarrow x = -139$

Ans: (D) -139

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2. Solve $x + 7 = 55$. Then $x =$

$x + 7 = 55$

$\Rightarrow x = 55 - 7$

$\Rightarrow x = 48$

Ans: (B) 48

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3. The solution of $x - 29 = -32$ is

$x - 29 = -32$

$\Rightarrow x = -32 + 29$

$\Rightarrow x = -3$

Ans: (A) -3

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4. Solve $x - 32 = 3$. Then $x =$

$x - 32 = 3$

$\Rightarrow x = 3 + 32$

$\Rightarrow x = 35$

Ans: (C) 35

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5. Solve $x \times 6 = 282$. Then $x =$

$x \times 6 = 282$

$\Rightarrow x = \frac{282}{6}$

$\Rightarrow x = 47$

Ans: (A) 47

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6. The solution of $\frac{x}{3} = 137$ is

$\frac{x}{3} = 137$

$\Rightarrow x = 137 \times 3$

$\Rightarrow x = 411$

Ans: (D) 411

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7. Which of the following equations has the solution $x = 1$?

Solve each one:

$x + 40 = 39 \Rightarrow x = 39 - 40 = -1$

$x - 40 = 39 \Rightarrow x = 39 + 40 = 79$

$x + 40 = -39 \Rightarrow x = -39 - 40 = -79$

$x - 40 = -39 \Rightarrow x = -39 + 40 = 1$

Only $x - 40 = -39$ gives $x = 1$.

Ans: (A) $x - 40 = -39$

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8. Which of the following equations has the solution $x = 30$?

Solve each one:

$x + 9 = 270 \Rightarrow x = 270 - 9 = 261$

$x - 9 = 270 \Rightarrow x = 270 + 9 = 279$

$x \times 9 = 270 \Rightarrow x = \frac{270}{9} = 30$

$\frac{x}{9} = 270 \Rightarrow x = 270 \times 9 = 2430$

Only $x \times 9 = 270$ gives $x = 30$.

Ans: (C) $x \times 9 = 270$

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9. The solution of $x + 70276 = 152021$ is

$x + 70276 = 152021$

$\Rightarrow x = 152021 - 70276$

Column subtraction: $152021 - 70276 = 81745$

$\Rightarrow x = 81745$

Ans: (C) 81745

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10. The solution of $x \times 37 = 150923$ is

$x \times 37 = 150923$

$\Rightarrow x = \frac{150923}{37}$

Long division: $150 \div 37 = 4$, remainder 2; $29 \div 37 = 0$, remainder 29; $292 \div 37 = 7$, remainder 33; $333 \div 37 = 9$, remainder 0

$\Rightarrow x = 4079$

Ans: (B) 4079

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11. The solution of $\frac{x}{-13} = 48$ is

$\frac{x}{-13} = 48$

$\Rightarrow x = 48 \times (-13)$

$+ \times - = -$

$\Rightarrow x = -624$

Ans: (B) -624

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12. If $\frac{x}{-11} = -46$, then $x =$

$\frac{x}{-11} = -46$

$\Rightarrow x = (-46) \times (-11)$

$- \times - = +$

$\Rightarrow x = 506$

Ans: (C) 506

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13. The solution of $5x + 15 = 90$ is

$5x + 15 = 90$

$\Rightarrow 5x = 90 - 15$

$\Rightarrow 5x = 75$

$\Rightarrow x = \frac{75}{5}$

$\Rightarrow x = 15$

Ans: (C) 15

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14. If $5x - 11 = -151$, then $x =$

$5x - 11 = -151$

$\Rightarrow 5x = -151 + 11$

$\Rightarrow 5x = -140$

$\Rightarrow x = \frac{-140}{5}$

$\Rightarrow x = -28$

Ans: (A) -28

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15. If $\frac{x}{7} + 71 = 46$, then $x =$

$\frac{x}{7} + 71 = 46$

$\Rightarrow \frac{x}{7} = 46 - 71$

$\Rightarrow \frac{x}{7} = -25$

$\Rightarrow x = -25 \times 7$

$\Rightarrow x = -175$

Ans: (A) -175

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16. Solve $\frac{7x}{8} + 29 = 71$. Then $x =$

$\frac{7x}{8} + 29 = 71$

$\Rightarrow \frac{7x}{8} = 71 - 29$

$\Rightarrow \frac{7x}{8} = 42$

$\Rightarrow 7x = 42 \times 8$

$\Rightarrow 7x = 336$

$\Rightarrow x = \frac{336}{7}$

$\Rightarrow x = 48$

Ans: (B) 48

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17. The solution of $\frac{9x}{8} - 29 = 25$ is

$\frac{9x}{8} - 29 = 25$

$\Rightarrow \frac{9x}{8} = 25 + 29$

$\Rightarrow \frac{9x}{8} = 54$

$\Rightarrow 9x = 54 \times 8$

$\Rightarrow 9x = 432$

$\Rightarrow x = \frac{432}{9}$

$\Rightarrow x = 48$

Ans: (A) 48

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18. The solution of $6x - 39 = -75 - 6x$ is

$6x - 39 = -75 - 6x$

$\Rightarrow 6x + 6x = -75 + 39$

$\Rightarrow 12x = -36$

$\Rightarrow x = \frac{-36}{12}$

$\Rightarrow x = -3$

Ans: (D) -3

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19. The solution of $2x - 16 + 5x = -52 + 3x$ is

$2x - 16 + 5x = -52 + 3x$

$\Rightarrow 7x - 16 = -52 + 3x$

$\Rightarrow 7x - 3x = -52 + 16$

$\Rightarrow 4x = -36$

$\Rightarrow x = \frac{-36}{4}$

$\Rightarrow x = -9$

Ans: (D) -9

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20. Solve $5x + 120 = 389 + 6x$. Then $x =$

$5x + 120 = 389 + 6x$

$\Rightarrow 5x - 6x = 389 - 120$

$\Rightarrow (-1)x = 269$

$\Rightarrow x = \frac{269}{-1}$

$(+ \div - = -)$

$\Rightarrow x = -269$

Ans: (B) -269

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21. The solution of $22 - 2x = 14$ is

$22 - 2x = 14$

$\Rightarrow -2x = 14 - 22$

$\Rightarrow -2x = -8$

$\Rightarrow x = \frac{-8}{-2}$

$(- \div - = +)$

$\Rightarrow x = 4$

Ans: (C) 4

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22. The sum of two integers is -932. If one of them is -644, the other is

Let the other integer be x.

$x + (-644) = -932$

$\Rightarrow x = -932 - (-644)$

$\Rightarrow x = -932 + 644$

$\Rightarrow x = -288$

Ans: (C) -288

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23. What number should be added to 191 to get 227?

Let the number be x.

$191 + x = 227$

$\Rightarrow x = 227 - 191$

$\Rightarrow x = 36$

Ans: (D) 36

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24. What number should be subtracted from -26 to get -138?

Let the number be x.

$-26 - x = -138$

$\Rightarrow -x = -138 + 26$

$\Rightarrow -x = -112$

$\Rightarrow x = 112$

Ans: (B) 112

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25. The difference of two integers is 88. If the smaller of them is 117, the larger is

Let the larger integer be x.

Larger $-$ smaller $=$ difference

$x - 117 = 88$

$\Rightarrow x = 88 + 117$

$\Rightarrow x = 205$

Ans: (D) 205