EXPRESSWALA ACADEMY

Simple Equations (on Integers)

MCQ Test, Set 07

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 $x + 27 = -99$ is

A. -72 **B.** -126 **C.** 72 **D.** 126

2. The solution of $x + 56 = 67$ is

A. -123 **B.** -11 **C.** 11 **D.** 123

3. The solution of $x - 75 = -46$ is

A. 29 **B.** -121 **C.** 121 **D.** -29

4. Solve $x - 9 = 51$. Then $x =$

A. 60 **B.** -60 **C.** 42 **D.** -42

5. Solve $x \times 5 = 475$. Then $x =$

A. 470 **B.** 95 **C.** 2375 **D.** 950

6. If $\frac{x}{8} = 74$, then $x =$

A. 66 **B.** $\frac{37}{4}$ **C.** 82 **D.** 592

7. Which of the following equations has the solution $x = 93$?

A. $x - 34 = 59$ **B.** $x + 34 = 59$ **C.** $x + 34 = -59$ **D.** $x - 34 = -59$

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

A. $x - 6 = 48$ **B.** $x \times 6 = 48$ **C.** $x + 6 = 48$ **D.** $\frac{x}{6} = 48$

9. Solve $x - 688 = -794$. Then $x =$

A. -1482 **B.** -106 **C.** 106 **D.** -114

10. If $x \times 21 = 6447$, then $x =$

A. 3070 **B.** 370 **C.** 37 **D.** 307

11. If $\frac{x}{-7} = 32$, then $x =$

A. -224 **B.** $-\frac{32}{7}$ **C.** $\frac{32}{7}$ **D.** 224

12. The solution of $\frac{x}{-10} = -222$ is

A. $-\frac{111}{5}$ **B.** -2220 **C.** $\frac{111}{5}$ **D.** 2220

13. If $6x + 72 = 258$, then $x =$

A. 55 **B.** 186 **C.** 31 **D.** -31

14. Solve $4x - 107 = -79$. Then $x =$

A. 7 **B.** -7 **C.** $-\frac{93}{2}$ **D.** 28

15. If $\frac{x}{8} - 73 = -49$, then $x =$

A. -192 **B.** -976 **C.** 192 **D.** 3

16. The solution of $\frac{7x}{4} + 9 = -33$ is

A. -168 **B.** -24 **C.** $-\frac{96}{7}$ **D.** $-\frac{147}{2}$

17. If $\frac{3x}{4} - 26 = -20$, then $x =$

A. 8 **B.** $\frac{9}{2}$ **C.** $-\frac{184}{3}$ **D.** 24

18. Solve $3x - 11 = -83 - 5x$. Then $x =$

A. 36 **B.** $-\frac{47}{4}$ **C.** 9 **D.** -9

19. The solution of $9x - 19 + 9x = -40 + 15x$ is

A. $\frac{7}{2}$ **B.** $-\frac{59}{3}$ **C.** -7 **D.** 7

20. If $7x - 39 = -194 + 8x$, then $x =$

A. $-\frac{31}{3}$ **B.** 155 **C.** 233 **D.** -155

21. Solve $-10x - 2 - 4x = 26$. Then $x =$

A. $-\frac{12}{7}$ **B.** -2 **C.** 2 **D.** $-\frac{14}{3}$

22. The sum of two integers is -975. If one of them is 484, the other is

A. 491 **B.** -491 **C.** -1459 **D.** 1459

23. What number should be added to 163 to get -249?

A. 86 **B.** -86 **C.** 412 **D.** -412

24. What number should be subtracted from 43 to get 106?

A. 63 **B.** -149 **C.** -63 **D.** 149

25. The product of two integers is -1136. If one of them is 16, the other is

A. -1152 **B.** 71 **C.** -72 **D.** -71

Key sheet

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

Solutions

1. The solution of $x + 27 = -99$ is

$x + 27 = -99$

$\Rightarrow x = -99 - 27$

$\Rightarrow x = -126$

Ans: (B) -126

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2. The solution of $x + 56 = 67$ is

$x + 56 = 67$

$\Rightarrow x = 67 - 56$

$\Rightarrow x = 11$

Ans: (C) 11

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3. The solution of $x - 75 = -46$ is

$x - 75 = -46$

$\Rightarrow x = -46 + 75$

$\Rightarrow x = 29$

Ans: (A) 29

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4. Solve $x - 9 = 51$. Then $x =$

$x - 9 = 51$

$\Rightarrow x = 51 + 9$

$\Rightarrow x = 60$

Ans: (A) 60

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5. Solve $x \times 5 = 475$. Then $x =$

$x \times 5 = 475$

$\Rightarrow x = \frac{475}{5}$

$\Rightarrow x = 95$

Ans: (B) 95

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6. If $\frac{x}{8} = 74$, then $x =$

$\frac{x}{8} = 74$

$\Rightarrow x = 74 \times 8$

$\Rightarrow x = 592$

Ans: (D) 592

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7. Which of the following equations has the solution $x = 93$?

Solve each one:

$x + 34 = 59 \Rightarrow x = 59 - 34 = 25$

$x - 34 = 59 \Rightarrow x = 59 + 34 = 93$

$x + 34 = -59 \Rightarrow x = -59 - 34 = -93$

$x - 34 = -59 \Rightarrow x = -59 + 34 = -25$

Only $x - 34 = 59$ gives $x = 93$.

Ans: (A) $x - 34 = 59$

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

Solve each one:

$x + 6 = 48 \Rightarrow x = 48 - 6 = 42$

$x - 6 = 48 \Rightarrow x = 48 + 6 = 54$

$x \times 6 = 48 \Rightarrow x = \frac{48}{6} = 8$

$\frac{x}{6} = 48 \Rightarrow x = 48 \times 6 = 288$

Only $x \times 6 = 48$ gives $x = 8$.

Ans: (B) $x \times 6 = 48$

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9. Solve $x - 688 = -794$. Then $x =$

$x - 688 = -794$

$\Rightarrow x = -794 + 688$

Column subtraction: $794 - 688 = 106$; the bigger number is negative, so x is negative

$\Rightarrow x = -106$

Ans: (B) -106

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10. If $x \times 21 = 6447$, then $x =$

$x \times 21 = 6447$

$\Rightarrow x = \frac{6447}{21}$

Long division: $64 \div 21 = 3$, remainder 1; $14 \div 21 = 0$, remainder 14; $147 \div 21 = 7$, remainder 0

$\Rightarrow x = 307$

Ans: (D) 307

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11. If $\frac{x}{-7} = 32$, then $x =$

$\frac{x}{-7} = 32$

$\Rightarrow x = 32 \times (-7)$

$+ \times - = -$

$\Rightarrow x = -224$

Ans: (A) -224

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12. The solution of $\frac{x}{-10} = -222$ is

$\frac{x}{-10} = -222$

$\Rightarrow x = (-222) \times (-10)$

$- \times - = +$

$\Rightarrow x = 2220$

Ans: (D) 2220

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13. If $6x + 72 = 258$, then $x =$

$6x + 72 = 258$

$\Rightarrow 6x = 258 - 72$

$\Rightarrow 6x = 186$

$\Rightarrow x = \frac{186}{6}$

$\Rightarrow x = 31$

Ans: (C) 31

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14. Solve $4x - 107 = -79$. Then $x =$

$4x - 107 = -79$

$\Rightarrow 4x = -79 + 107$

$\Rightarrow 4x = 28$

$\Rightarrow x = \frac{28}{4}$

$\Rightarrow x = 7$

Ans: (A) 7

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15. If $\frac{x}{8} - 73 = -49$, then $x =$

$\frac{x}{8} - 73 = -49$

$\Rightarrow \frac{x}{8} = -49 + 73$

$\Rightarrow \frac{x}{8} = 24$

$\Rightarrow x = 24 \times 8$

$\Rightarrow x = 192$

Ans: (C) 192

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16. The solution of $\frac{7x}{4} + 9 = -33$ is

$\frac{7x}{4} + 9 = -33$

$\Rightarrow \frac{7x}{4} = -33 - 9$

$\Rightarrow \frac{7x}{4} = -42$

$\Rightarrow 7x = -42 \times 4$

$\Rightarrow 7x = -168$

$\Rightarrow x = \frac{-168}{7}$

$\Rightarrow x = -24$

Ans: (B) -24

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17. If $\frac{3x}{4} - 26 = -20$, then $x =$

$\frac{3x}{4} - 26 = -20$

$\Rightarrow \frac{3x}{4} = -20 + 26$

$\Rightarrow \frac{3x}{4} = 6$

$\Rightarrow 3x = 6 \times 4$

$\Rightarrow 3x = 24$

$\Rightarrow x = \frac{24}{3}$

$\Rightarrow x = 8$

Ans: (A) 8

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18. Solve $3x - 11 = -83 - 5x$. Then $x =$

$3x - 11 = -83 - 5x$

$\Rightarrow 3x + 5x = -83 + 11$

$\Rightarrow 8x = -72$

$\Rightarrow x = \frac{-72}{8}$

$\Rightarrow x = -9$

Ans: (D) -9

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19. The solution of $9x - 19 + 9x = -40 + 15x$ is

$9x - 19 + 9x = -40 + 15x$

$\Rightarrow 18x - 19 = -40 + 15x$

$\Rightarrow 18x - 15x = -40 + 19$

$\Rightarrow 3x = -21$

$\Rightarrow x = \frac{-21}{3}$

$\Rightarrow x = -7$

Ans: (C) -7

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20. If $7x - 39 = -194 + 8x$, then $x =$

$7x - 39 = -194 + 8x$

$\Rightarrow 7x - 8x = -194 + 39$

$\Rightarrow (-1)x = -155$

$\Rightarrow x = \frac{-155}{-1}$

$(- \div - = +)$

$\Rightarrow x = 155$

Ans: (B) 155

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21. Solve $-10x - 2 - 4x = 26$. Then $x =$

$-10x - 2 - 4x = 26$

$\Rightarrow -14x - 2 = 26$

$\Rightarrow -14x = 26 + 2$

$\Rightarrow -14x = 28$

$\Rightarrow x = \frac{28}{-14}$

$(+ \div - = -)$

$\Rightarrow x = -2$

Ans: (B) -2

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22. The sum of two integers is -975. If one of them is 484, the other is

Let the other integer be x.

$x + 484 = -975$

$\Rightarrow x = -975 - 484$

$\Rightarrow x = -1459$

Ans: (C) -1459

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23. What number should be added to 163 to get -249?

Let the number be x.

$163 + x = -249$

$\Rightarrow x = -249 - 163$

$\Rightarrow x = -412$

Ans: (D) -412

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24. What number should be subtracted from 43 to get 106?

Let the number be x.

$43 - x = 106$

$\Rightarrow -x = 106 - 43$

$\Rightarrow -x = 63$

$\Rightarrow x = -63$

Ans: (C) -63

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25. The product of two integers is -1136. If one of them is 16, the other is

Let the other integer be x.

$x \times 16 = -1136$

$\Rightarrow x = \frac{-1136}{16}$

Long division: $113 \div 16 = 7$, remainder 1; $16 \div 16 = 1$, remainder 0

$(- \div + = -)$

$\Rightarrow x = -71$

Ans: (D) -71