EXPRESSWALA ACADEMY

# Simple Equations (on Integers)

## MCQ Test, Set 05

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 $x + 85 = -59$ is

**A.** $26$ **B.** $-144$ **C.** $-26$ **D.** $144$

**2.** The solution of $x + 4 = 76$ is

**A.** $-80$ **B.** $80$ **C.** $72$ **D.** $-72$

**3.** If $x - 14 = -8$, then $x =$

**A.** $6$ **B.** $-6$ **C.** $-22$ **D.** $22$

**4.** Solve $x - 62 = 27$. Then $x =$

**A.** $89$ **B.** $-35$ **C.** $-89$ **D.** $35$

**5.** If $x \times 2 = 130$, then $x =$

**A.** $128$ **B.** $260$ **C.** $65$ **D.** $650$

**6.** Solve $\frac{x}{3} = 126$. Then $x =$

**A.** $42$ **B.** $378$ **C.** $129$ **D.** $123$

**7.** Which of the following equations has the solution $x = 67$?

**A.** $x + 12 = 79$ **B.** $x - 12 = -79$ **C.** $x + 12 = -79$ **D.** $x - 12 = 79$

**8.** Which of the following equations has the solution $x = 16$?

**A.** $\frac{x}{5} = 80$ **B.** $x \times 5 = 80$ **C.** $x - 5 = 80$ **D.** $x + 5 = 80$

**9.** The solution of $x - 178 = -341$ is

**A.** $-519$ **B.** $-163$ **C.** $-237$ **D.** $163$

**10.** Solve $x \times 31 = 21948$. Then $x =$

**A.** $708$ **B.** $78$ **C.** $7080$ **D.** $780$

**11.** Solve $\frac{x}{-4} = 275$. Then $x =$

**A.** $-\frac{275}{4}$ **B.** $1100$ **C.** $\frac{275}{4}$ **D.** $-1100$

**12.** If $\frac{x}{-8} = -44$, then $x =$

**A.** $352$ **B.** $-352$ **C.** $\frac{11}{2}$ **D.** $-\frac{11}{2}$

**13.** If $6x + 132 = 84$, then $x =$

**A.** $36$ **B.** $-48$ **C.** $8$ **D.** $-8$

**14.** Solve $5x - 82 = -57$. Then $x =$

**A.** $-5$ **B.** $-\frac{139}{5}$ **C.** $25$ **D.** $5$

**15.** Solve $\frac{x}{4} + 138 = 218$. Then $x =$

**A.** $1424$ **B.** $-320$ **C.** $320$ **D.** $20$

**16.** If $\frac{7x}{4} + 25 = -24$, then $x =$

**A.** $\frac{4}{7}$ **B.** $-\frac{343}{4}$ **C.** $-28$ **D.** $-196$

**17.** Solve $\frac{7x}{4} - 25 = -60$. Then $x =$

**A.** $-\frac{340}{7}$ **B.** $-140$ **C.** $-\frac{245}{4}$ **D.** $-20$

**18.** If $7x - 22 = -87 - 6x$, then $x =$

**A.** $-\frac{109}{13}$ **B.** $-5$ **C.** $-65$ **D.** $5$

**19.** If $3x - 12 + 5x = 28 + 4x$, then $x =$

**A.** $4$ **B.** $10$ **C.** $-10$ **D.** $-40$

**20.** The solution of $6x + 50 = 289 + 7x$ is

**A.** $\frac{239}{13}$ **B.** $239$ **C.** $-239$ **D.** $-339$

**21.** Solve $-5x - 37 - 7x = -85$. Then $x =$

**A.** $-24$ **B.** $4$ **C.** $-4$ **D.** $\frac{61}{6}$

**22.** The sum of two integers is $-812$. If one of them is $618$, the other is

**A.** $-1430$ **B.** $1430$ **C.** $194$ **D.** $-194$

**23.** What number should be added to $152$ to get $-52$?

**A.** $100$ **B.** $204$ **C.** $-100$ **D.** $-204$

**24.** What number should be subtracted from $3$ to get $-142$?

**A.** $-139$ **B.** $139$ **C.** $-145$ **D.** $145$

**25.** The product of two integers is $1092$. If one of them is $-13$, the other is

**A.** $84$ **B.** $1105$ **C.** $-84$ **D.** $-85$

## Key sheet

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

## Solutions

**1.** The solution of $x + 85 = -59$ is

$x + 85 = -59$
$\Rightarrow x = -59 - 85$
$\Rightarrow x = -144$

**Ans: (B)** $-144$

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**2.** The solution of $x + 4 = 76$ is

$x + 4 = 76$
$\Rightarrow x = 76 - 4$
$\Rightarrow x = 72$

**Ans: (C)** $72$

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**3.** If $x - 14 = -8$, then $x =$

$x - 14 = -8$
$\Rightarrow x = -8 + 14$
$\Rightarrow x = 6$

**Ans: (A)** $6$

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**4.** Solve $x - 62 = 27$. Then $x =$

$x - 62 = 27$
$\Rightarrow x = 27 + 62$
$\Rightarrow x = 89$

**Ans: (A)** $89$

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**5.** If $x \times 2 = 130$, then $x =$

$x \times 2 = 130$
$\Rightarrow x = \frac{130}{2}$
$\Rightarrow x = 65$

**Ans: (C)** $65$

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**6.** Solve $\frac{x}{3} = 126$. Then $x =$

$\frac{x}{3} = 126$
$\Rightarrow x = 126 \times 3$
$\Rightarrow x = 378$

**Ans: (B)** $378$

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**7.** Which of the following equations has the solution $x = 67$?

Solve each one:

$x + 12 = 79 \Rightarrow x = 79 - 12 = 67$

$x - 12 = 79 \Rightarrow x = 79 + 12 = 91$

$x + 12 = -79 \Rightarrow x = -79 - 12 = -91$

$x - 12 = -79 \Rightarrow x = -79 + 12 = -67$

Only $x + 12 = 79$ gives $x = 67$.

**Ans: (A)** $x + 12 = 79$

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**8.** Which of the following equations has the solution $x = 16$?

Solve each one:

$x + 5 = 80 \Rightarrow x = 80 - 5 = 75$

$x - 5 = 80 \Rightarrow x = 80 + 5 = 85$

$x \times 5 = 80 \Rightarrow x = \frac{80}{5} = 16$

$\frac{x}{5} = 80 \Rightarrow x = 80 \times 5 = 400$

Only $x \times 5 = 80$ gives $x = 16$.

**Ans: (B)** $x \times 5 = 80$

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**9.** The solution of $x - 178 = -341$ is

$x - 178 = -341$

$\Rightarrow x = -341 + 178$

Column subtraction: $341 - 178 = 163$; the bigger number is negative, so $x$ is negative

$\Rightarrow x = -163$

**Ans: (B)** $-163$

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**10.** Solve $x \times 31 = 21948$. Then $x =$

$x \times 31 = 21948$

$\Rightarrow x = \frac{21948}{31}$

Long division: $219 \div 31 = 7$, remainder 2; $24 \div 31 = 0$, remainder 24; $248 \div 31 = 8$, remainder $0$

$\Rightarrow x = 708$

**Ans: (A)** $708$

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**11.** Solve $\frac{x}{-4} = 275$. Then $x =$

$\frac{x}{-4} = 275$

$\Rightarrow x = 275 \times (-4)$

$+ \times - = -$

$\Rightarrow x = -1100$

**Ans: (D)** $-1100$

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**12.** If $\frac{x}{-8} = -44$, then $x =$

$\frac{x}{-8} = -44$

$\Rightarrow x = (-44) \times (-8)$

$- \times - = +$

$\Rightarrow x = 352$

**Ans: (A)** $352$

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**13.** If $6x + 132 = 84$, then $x =$

$6x + 132 = 84$

$\Rightarrow 6x = 84 - 132$

$\Rightarrow 6x = -48$

$\Rightarrow x = \frac{-48}{6}$

$\Rightarrow x = -8$

**Ans: (D)** $-8$

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**14.** Solve $5x - 82 = -57$. Then $x =$

$5x - 82 = -57$

$\Rightarrow 5x = -57 + 82$

$\Rightarrow 5x = 25$

$\Rightarrow x = \frac{25}{5}$

$\Rightarrow x = 5$

**Ans: (D)** $5$

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**15.** Solve $\frac{x}{4} + 138 = 218$. Then $x =$

$\frac{x}{4} + 138 = 218$

$\Rightarrow \frac{x}{4} = 218 - 138$

$\Rightarrow \frac{x}{4} = 80$

$\Rightarrow x = 80 \times 4$

$\Rightarrow x = 320$

**Ans: (C)** $320$

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**16.** If $\frac{7x}{4} + 25 = -24$, then $x =$

$\frac{7x}{4} + 25 = -24$

$\Rightarrow \frac{7x}{4} = -24 - 25$

$\Rightarrow \frac{7x}{4} = -49$

$\Rightarrow 7x = -49 \times 4$

$\Rightarrow 7x = -196$

$\Rightarrow x = \frac{-196}{7}$

$\Rightarrow x = -28$

**Ans: (C)** $-28$

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**17.** Solve $\frac{7x}{4} - 25 = -60$. Then $x =$

$\frac{7x}{4} - 25 = -60$

$\Rightarrow \frac{7x}{4} = -60 + 25$

$\Rightarrow \frac{7x}{4} = -35$

$\Rightarrow 7x = -35 \times 4$

$\Rightarrow 7x = -140$

$\Rightarrow x = \frac{-140}{7}$

$\Rightarrow x = -20$

**Ans: (D)** $-20$

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**18.** If $7x - 22 = -87 - 6x$, then $x =$

$7x - 22 = -87 - 6x$

$\Rightarrow 7x + 6x = -87 + 22$

$\Rightarrow 13x = -65$

$\Rightarrow x = \frac{-65}{13}$

$\Rightarrow x = -5$

**Ans: (B)** $-5$

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**19.** If $3x - 12 + 5x = 28 + 4x$, then $x =$

$3x - 12 + 5x = 28 + 4x$

$\Rightarrow 8x - 12 = 28 + 4x$

$\Rightarrow 8x - 4x = 28 + 12$

$\Rightarrow 4x = 40$

$\Rightarrow x = \frac{40}{4}$

$\Rightarrow x = 10$

**Ans: (B)** $10$

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**20.** The solution of $6x + 50 = 289 + 7x$ is

$6x + 50 = 289 + 7x$

$\Rightarrow 6x - 7x = 289 - 50$

$\Rightarrow (-1)x = 239$

$\Rightarrow x = \frac{239}{-1}$

$(+ \div - = -)$

$\Rightarrow x = -239$

**Ans: (C)** $-239$

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**21.** Solve $-5x - 37 - 7x = -85$. Then $x =$

$-5x - 37 - 7x = -85$

$\Rightarrow -12x - 37 = -85$

$\Rightarrow -12x = -85 + 37$

$\Rightarrow -12x = -48$

$\Rightarrow x = \frac{-48}{-12}$

$(- \div - = +)$

$\Rightarrow x = 4$

**Ans: (B)** $4$

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**22.** The sum of two integers is $-812$. If one of them is $618$, the other is

Let the other integer be $x$.

$x + 618 = -812$

$\Rightarrow x = -812 - 618$

$\Rightarrow x = -1430$

**Ans: (A)** $-1430$

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**23.** What number should be added to $152$ to get $-52$?

Let the number be $x$.

$152 + x = -52$

$\Rightarrow x = -52 - 152$

$\Rightarrow x = -204$

**Ans: (D)** $-204$

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**24.** What number should be subtracted from $3$ to get $-142$?

Let the number be $x$.

$3 - x = -142$

$\Rightarrow -x = -142 - 3$

$\Rightarrow -x = -145$

$\Rightarrow x = 145$

**Ans: (D)** $145$

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**25.** The product of two integers is $1092$. If one of them is $-13$, the other is

Let the other integer be $x$.

$x \times (-13) = 1092$

$\Rightarrow x = \frac{1092}{-13}$

Long division: $109 \div 13 = 8$, remainder $5$; $52 \div 13 = 4$, remainder $0$

$(+ \div - = -)$

$\Rightarrow x = -84$

**Ans: (C)** $-84$

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