

Simple Equations (on Integers)

MCQ Test, Set 01

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. If $x + 11 = -2$, then $x =$

- A.** -13 **B.** -9 **C.** 13 **D.** 9

2. Solve $x + 99 = 50$. Then $x =$

- A.** 149 **B.** 49 **C.** -149 **D.** -49

3. If $x - 58 = -63$, then $x =$

- A.** -5 **B.** 5 **C.** -121 **D.** 121

4. Solve $x - 74 = 65$. Then $x =$

- A.** 9 **B.** -139 **C.** -9 **D.** 139

5. The solution of $7 \times x = 651$ is

- A.** 644 **B.** 930 **C.** 93 **D.** 4557

6. The solution of $\frac{x}{3} = 26$ is

- A.** 29 **B.** 78 **C.** $\frac{26}{3}$ **D.** 23

7. Which of the following equations has the solution $x = -53$?

- A.** $x + 19 = 34$ **B.** $x - 19 = 34$ **C.** $x - 19 = -34$ **D.** $x + 19 = -34$

8. Which of the following equations has the solution $x = 36$?

- A.** $\frac{x}{6} = 30$ **B.** $x \times 6 = 30$ **C.** $x - 6 = 30$ **D.** $x + 6 = 30$

9. Solve $x - 577 = -880$. Then $x =$

- A.** -1457 **B.** -303 **C.** -317 **D.** 303

10. If $x \times 25 = 10200$, then $x =$

- A.** 48 **B.** 4080 **C.** 408 **D.** 480

11. If $\frac{x}{-17} = 178$, then $x =$

- A.** -3026 **B.** $\frac{178}{17}$ **C.** 3026 **D.** $-\frac{178}{17}$

12. If $\frac{x}{14} = -231$, then $x =$
A. $-\frac{33}{2}$ **B.** -3234 **C.** $\frac{33}{2}$ **D.** 3234
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13. Solve $3x + 121 = 67$. Then $x =$
A. $\frac{188}{3}$ **B.** -18 **C.** 18 **D.** -54
-
14. The solution of $9x - 91 = -217$ is
A. -126 **B.** $-\frac{308}{9}$ **C.** 14 **D.** -14
-
15. The solution of $\frac{x}{3} - 139 = -78$ is
A. -183 **B.** -651 **C.** $\frac{61}{3}$ **D.** 183
-
16. If $\frac{3x}{2} + 12 = -12$, then $x =$
A. -48 **B.** -36 **C.** -16 **D.** 0
-
17. The solution of $\frac{7x}{6} - 9 = -37$ is
A. -24 **B.** $-\frac{276}{7}$ **C.** -168 **D.** $-\frac{98}{3}$
-
18. The solution of $7x + 30 = -20 - 3x$ is
A. $-\frac{25}{2}$ **B.** 1 **C.** -5 **D.** 5
-
19. The solution of $4x + 13 + 7x = 29 + 9x$ is
A. $-\frac{16}{5}$ **B.** 8 **C.** -8 **D.** 21
-
20. The solution of $9x - 140 = -77 + 10x$ is
A. 217 **B.** 63 **C.** -63 **D.** $\frac{63}{19}$
-
21. Solve $-8x - 27 - 11x = -179$. Then $x =$
A. -8 **B.** $\frac{206}{19}$ **C.** $-\frac{152}{3}$ **D.** 8
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22. The sum of two integers is 349. If one of them is 548, the other is
A. -897 **B.** 897 **C.** 199 **D.** -199
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23. What number should be added to 190 to get -165 ?
A. -355 **B.** -25 **C.** 355 **D.** 25
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24. What number should be subtracted from 10 to get -59 ?
A. 49 **B.** 69 **C.** -49 **D.** -69
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25. The product of two integers is -550 . If one of them is 25, the other is
A. -22 **B.** 22 **C.** -23 **D.** -575
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Key sheet

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

Solutions

1. If $x + 11 = -2$, then $x =$

$$x + 11 = -2$$

$$\Rightarrow x = -2 - 11$$

$$\Rightarrow x = -13$$

Ans: (A) -13

2. Solve $x + 99 = 50$. Then $x =$

$$x + 99 = 50$$

$$\Rightarrow x = 50 - 99$$

$$\Rightarrow x = -49$$

Ans: (D) -49

3. If $x - 58 = -63$, then $x =$

$$x - 58 = -63$$

$$\Rightarrow x = -63 + 58$$

$$\Rightarrow x = -5$$

Ans: (A) -5

4. Solve $x - 74 = 65$. Then $x =$

$$x - 74 = 65$$

$$\Rightarrow x = 65 + 74$$

$$\Rightarrow x = 139$$

Ans: (D) 139

5. The solution of $7 \times x = 651$ is

$$7 \times x = 651$$

$$\Rightarrow x = \frac{651}{7}$$

$$\Rightarrow x = 93$$

Ans: (C) 93

6. The solution of $\frac{x}{3} = 26$ is

$$\frac{x}{3} = 26$$

$$\Rightarrow x = 26 \times 3$$

$$\Rightarrow x = 78$$

Ans: (B) 78

7. Which of the following equations has the solution $x = -53$?

Solve each one:

$$x + 19 = 34 \Rightarrow x = 34 - 19 = 15$$

$$x - 19 = 34 \Rightarrow x = 34 + 19 = 53$$

$$x + 19 = -34 \Rightarrow x = -34 - 19 = -53$$

$$x - 19 = -34 \Rightarrow x = -34 + 19 = -15$$

Only $x + 19 = -34$ gives $x = -53$.

Ans: (D) $x + 19 = -34$

8. Which of the following equations has the solution $x = 36$?

Solve each one:

$$x + 6 = 30 \Rightarrow x = 30 - 6 = 24$$

$$x - 6 = 30 \Rightarrow x = 30 + 6 = 36$$

$$x \times 6 = 30 \Rightarrow x = \frac{30}{6} = 5$$

$$\frac{x}{6} = 30 \Rightarrow x = 30 \times 6 = 180$$

Only $x - 6 = 30$ gives $x = 36$.

Ans: (C) $x - 6 = 30$

9. Solve $x - 577 = -880$. Then $x =$

$$x - 577 = -880$$

$$\Rightarrow x = -880 + 577$$

Column subtraction: $880 - 577 = 303$; the bigger number is negative, so x is negative

$$\Rightarrow x = -303$$

Ans: (B) -303

10. If $x \times 25 = 10200$, then $x =$

$$x \times 25 = 10200$$

$$\Rightarrow x = \frac{10200}{25}$$

Long division: $102 \div 25 = 4$, remainder 2; $20 \div 25 = 0$, remainder 20; $200 \div 25 = 8$, remainder 0

$$\Rightarrow x = 408$$

Ans: (C) 408

11. If $\frac{x}{-17} = 178$, then $x =$

$$\frac{x}{-17} = 178$$

$$\Rightarrow x = 178 \times (-17)$$

$$+ \times - = -$$

$$\Rightarrow x = -3026$$

Ans: (A) -3026

12. If $\frac{x}{14} = -231$, then $x =$

$$\frac{x}{14} = -231$$

$$\Rightarrow x = (-231) \times 14$$

$$- \times + = -$$

$$\Rightarrow x = -3234$$

Ans: (B) -3234

13. Solve $3x + 121 = 67$. Then $x =$

$$3x + 121 = 67$$

$$\Rightarrow 3x = 67 - 121$$

$$\Rightarrow 3x = -54$$

$$\Rightarrow x = \frac{-54}{3}$$

$$\Rightarrow x = -18$$

Ans: (B) -18

14. The solution of $9x - 91 = -217$ is

$$9x - 91 = -217$$

$$\Rightarrow 9x = -217 + 91$$

$$\Rightarrow 9x = -126$$

$$\Rightarrow x = \frac{-126}{9}$$

$$\Rightarrow x = -14$$

Ans: (D) -14

15. The solution of $\frac{x}{3} - 139 = -78$ is

$$\frac{x}{3} - 139 = -78$$

$$\Rightarrow \frac{x}{3} = -78 + 139$$

$$\Rightarrow \frac{x}{3} = 61$$

$$\Rightarrow x = 61 \times 3$$

$$\Rightarrow x = 183$$

Ans: (D) 183

16. If $\frac{3x}{2} + 12 = -12$, then $x =$

$$\frac{3x}{2} + 12 = -12$$

$$\Rightarrow \frac{3x}{2} = -12 - 12$$

$$\Rightarrow \frac{3x}{2} = -24$$

$$\Rightarrow 3x = -24 \times 2$$

$$\Rightarrow 3x = -48$$

$$\Rightarrow x = \frac{-48}{3}$$

$$\Rightarrow x = -16$$

Ans: (C) -16

17. The solution of $\frac{7x}{6} - 9 = -37$ is

$$\frac{7x}{6} - 9 = -37$$

$$\Rightarrow \frac{7x}{6} = -37 + 9$$

$$\Rightarrow \frac{7x}{6} = -28$$

$$\Rightarrow 7x = -28 \times 6$$

$$\Rightarrow 7x = -168$$

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

$$\Rightarrow x = -24$$

Ans: (A) -24

18. The solution of $7x + 30 = -20 - 3x$ is

$$7x + 30 = -20 - 3x$$

$$\Rightarrow 7x + 3x = -20 - 30$$

$$\Rightarrow 10x = -50$$

$$\Rightarrow x = \frac{-50}{10}$$

$$\Rightarrow x = -5$$

Ans: (C) -5

19. The solution of $4x + 13 + 7x = 29 + 9x$ is

$$4x + 13 + 7x = 29 + 9x$$

$$\Rightarrow 11x + 13 = 29 + 9x$$

$$\Rightarrow 11x - 9x = 29 - 13$$

$$\Rightarrow 2x = 16$$

$$\Rightarrow x = \frac{16}{2}$$

$$\Rightarrow x = 8$$

Ans: (B) 8

20. The solution of $9x - 140 = -77 + 10x$ is

$$9x - 140 = -77 + 10x$$

$$\Rightarrow 9x - 10x = -77 + 140$$

$$\Rightarrow (-1)x = 63$$

$$\Rightarrow x = \frac{63}{-1}$$

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

$$\Rightarrow x = -63$$

Ans: (C) -63

21. Solve $-8x - 27 - 11x = -179$. Then $x =$

$$-8x - 27 - 11x = -179$$

$$\Rightarrow -19x - 27 = -179$$

$$\Rightarrow -19x = -179 + 27$$

$$\Rightarrow -19x = -152$$

$$\Rightarrow x = \frac{-152}{-19}$$

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

$$\Rightarrow x = 8$$

Ans: (D) 8

22. The sum of two integers is 349. If one of them is 548, the other is

Let the other integer be x .

$$x + 548 = 349$$

$$\Rightarrow x = 349 - 548$$

$$\Rightarrow x = -199$$

Ans: (D) -199

23. What number should be added to 190 to get -165 ?

Let the number be x .

$$190 + x = -165$$

$$\Rightarrow x = -165 - 190$$

$$\Rightarrow x = -355$$

Ans: (A) -355

24. What number should be subtracted from 10 to get -59 ?

Let the number be x .

$$10 - x = -59$$

$$\Rightarrow -x = -59 - 10$$

$$\Rightarrow -x = -69$$

$$\Rightarrow x = 69$$

Ans: (B) 69

25. The product of two integers is -550 . If one of them is 25, the other is

Let the other integer be x .

$$x \times 25 = -550$$

$$\Rightarrow x = \frac{-550}{25}$$

Long division: $55 \div 25 = 2$, remainder 5; $50 \div 25 = 2$, remainder 0

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

$$\Rightarrow x = -22$$

Ans: (A) -22
