

Simple Equations (on Integers)

MCQ Test, Set 03

Time: 30 minutes

Maximum marks: 25

Name: _____ Class: _____ Date: _____

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

- The solution of $x + 21 = -2$ is
A. -19 **B.** 23 **C.** 19 **D.** -23
- The solution of $x + 61 = 94$ is
A. -33 **B.** -155 **C.** 33 **D.** 155
- The solution of $x - 72 = -55$ is
A. -17 **B.** 127 **C.** -127 **D.** 17
- If $x - 92 = 57$, then $x =$
A. -149 **B.** 35 **C.** 149 **D.** -35
- Solve $x \times 7 = 364$. Then $x =$
A. 52 **B.** 520 **C.** 357 **D.** 2548
- The solution of $\frac{x}{4} = 94$ is
A. $\frac{47}{2}$ **B.** 376 **C.** 90 **D.** 98
- Which of the following equations has the solution $x = 63$?
A. $x - 18 = -45$ **B.** $x + 18 = -45$ **C.** $x + 18 = 45$ **D.** $x - 18 = 45$
- Which of the following equations has the solution $x = 21$?
A. $\frac{x}{6} = 126$ **B.** $x \times 6 = 126$ **C.** $x + 6 = 126$ **D.** $x - 6 = 126$
- Solve $x - 565 = -822$. Then $x =$
A. -1387 **B.** 257 **C.** -257 **D.** -343
- If $x \times 19 = 7619$, then $x =$
A. 41 **B.** 4010 **C.** 410 **D.** 401
- The solution of $\frac{x}{-3} = 119$ is
A. -357 **B.** $-\frac{119}{3}$ **C.** $\frac{119}{3}$ **D.** 357

12. Solve $\frac{x}{4} = -198$. Then $x =$
A. -792 **B.** $-\frac{99}{2}$ **C.** 792 **D.** $\frac{99}{2}$
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13. Solve $5x + 84 = 164$. Then $x =$
A. -16 **B.** 16 **C.** $\frac{248}{5}$ **D.** 80
-
14. Solve $7x - 125 = 57$. Then $x =$
A. 26 **B.** -26 **C.** $-\frac{68}{7}$ **D.** 182
-
15. The solution of $\frac{x}{9} - 130 = -31$ is
A. 891 **B.** -891 **C.** 11 **D.** -1449
-
16. Solve $\frac{8x}{5} + 18 = -46$. Then $x =$
A. $-\frac{35}{2}$ **B.** -320 **C.** -40 **D.** $-\frac{512}{5}$
-
17. Solve $\frac{4x}{5} - 39 = -31$. Then $x =$
A. 40 **B.** $\frac{32}{5}$ **C.** $-\frac{175}{2}$ **D.** 10
-
18. If $8x - 36 = 39 - 7x$, then $x =$
A. 5 **B.** -5 **C.** 75 **D.** $\frac{1}{5}$
-
19. The solution of $9x - 27 + 6x = -49 + 13x$ is
A. $\frac{11}{2}$ **B.** -11 **C.** 11 **D.** -38
-
20. The solution of $3x - 81 = -285 + 4x$ is
A. $-\frac{204}{7}$ **B.** 204 **C.** -204 **D.** 366
-
21. Solve $-8x - 2 - 10x = 34$. Then $x =$
A. 18 **B.** $-\frac{16}{9}$ **C.** -2 **D.** 2
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22. The sum of two integers is 107 . If one of them is 414 , the other is
A. 521 **B.** -307 **C.** 307 **D.** -521
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23. What number should be added to -58 to get -290 ?
A. 232 **B.** 348 **C.** -348 **D.** -232
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24. What number should be subtracted from 138 to get 103 ?
A. -35 **B.** 241 **C.** 35 **D.** -241
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25. The product of two integers is -644 . If one of them is 23 , the other is
A. -28 **B.** -667 **C.** 28 **D.** -29
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Key sheet

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

Solutions

1. The solution of $x + 21 = -2$ is

$$x + 21 = -2$$

$$\Rightarrow x = -2 - 21$$

$$\Rightarrow x = -23$$

Ans: (D) -23

2. The solution of $x + 61 = 94$ is

$$x + 61 = 94$$

$$\Rightarrow x = 94 - 61$$

$$\Rightarrow x = 33$$

Ans: (C) 33

3. The solution of $x - 72 = -55$ is

$$x - 72 = -55$$

$$\Rightarrow x = -55 + 72$$

$$\Rightarrow x = 17$$

Ans: (D) 17

4. If $x - 92 = 57$, then $x =$

$$x - 92 = 57$$

$$\Rightarrow x = 57 + 92$$

$$\Rightarrow x = 149$$

Ans: (C) 149

5. Solve $x \times 7 = 364$. Then $x =$

$$x \times 7 = 364$$

$$\Rightarrow x = \frac{364}{7}$$

$$\Rightarrow x = 52$$

Ans: (A) 52

6. The solution of $\frac{x}{4} = 94$ is

$$\frac{x}{4} = 94$$

$$\Rightarrow x = 94 \times 4$$

$$\Rightarrow x = 376$$

Ans: (B) 376

7. Which of the following equations has the solution $x = 63$?

Solve each one:

$$x + 18 = 45 \Rightarrow x = 45 - 18 = 27$$

$$x - 18 = 45 \Rightarrow x = 45 + 18 = 63$$

$$x + 18 = -45 \Rightarrow x = -45 - 18 = -63$$

$$x - 18 = -45 \Rightarrow x = -45 + 18 = -27$$

Only $x - 18 = 45$ gives $x = 63$.

Ans: (D) $x - 18 = 45$

8. Which of the following equations has the solution $x = 21$?

Solve each one:

$$x + 6 = 126 \Rightarrow x = 126 - 6 = 120$$

$$x - 6 = 126 \Rightarrow x = 126 + 6 = 132$$

$$x \times 6 = 126 \Rightarrow x = \frac{126}{6} = 21$$

$$\frac{x}{6} = 126 \Rightarrow x = 126 \times 6 = 756$$

Only $x \times 6 = 126$ gives $x = 21$.

Ans: (B) $x \times 6 = 126$

9. Solve $x - 565 = -822$. Then $x =$

$$x - 565 = -822$$

$$\Rightarrow x = -822 + 565$$

Column subtraction: $822 - 565 = 257$; the bigger number is negative, so x is negative

$$\Rightarrow x = -257$$

Ans: (C) -257

10. If $x \times 19 = 7619$, then $x =$

$$x \times 19 = 7619$$

$$\Rightarrow x = \frac{7619}{19}$$

Long division: $76 \div 19 = 4$, remainder 0; $1 \div 19 = 0$, remainder 1; $19 \div 19 = 1$, remainder 0

$$\Rightarrow x = 401$$

Ans: (D) 401

11. The solution of $\frac{x}{-3} = 119$ is

$$\frac{x}{-3} = 119$$

$$\Rightarrow x = 119 \times (-3)$$

$$+ \times - = -$$

$$\Rightarrow x = -357$$

Ans: (A) -357

12. Solve $\frac{x}{4} = -198$. Then $x =$

$$\frac{x}{4} = -198$$

$$\Rightarrow x = (-198) \times 4$$

$$- \times + = -$$

$$\Rightarrow x = -792$$

Ans: (A) -792

13. Solve $5x + 84 = 164$. Then $x =$

$$5x + 84 = 164$$

$$\Rightarrow 5x = 164 - 84$$

$$\Rightarrow 5x = 80$$

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

$$\Rightarrow x = 16$$

Ans: (B) 16

14. Solve $7x - 125 = 57$. Then $x =$

$$7x - 125 = 57$$

$$\Rightarrow 7x = 57 + 125$$

$$\Rightarrow 7x = 182$$

$$\Rightarrow x = \frac{182}{7}$$

$$\Rightarrow x = 26$$

Ans: (A) 26

15. The solution of $\frac{x}{9} - 130 = -31$ is

$$\frac{x}{9} - 130 = -31$$

$$\Rightarrow \frac{x}{9} = -31 + 130$$

$$\Rightarrow \frac{x}{9} = 99$$

$$\Rightarrow x = 99 \times 9$$

$$\Rightarrow x = 891$$

Ans: (A) 891

16. Solve $\frac{8x}{5} + 18 = -46$. Then $x =$

$$\frac{8x}{5} + 18 = -46$$

$$\Rightarrow \frac{8x}{5} = -46 - 18$$

$$\Rightarrow \frac{8x}{5} = -64$$

$$\Rightarrow 8x = -64 \times 5$$

$$\Rightarrow 8x = -320$$

$$\Rightarrow x = \frac{-320}{8}$$

$$\Rightarrow x = -40$$

Ans: (C) -40

17. Solve $\frac{4x}{5} - 39 = -31$. Then $x =$

$$\frac{4x}{5} - 39 = -31$$

$$\Rightarrow \frac{4x}{5} = -31 + 39$$

$$\Rightarrow \frac{4x}{5} = 8$$

$$\Rightarrow 4x = 8 \times 5$$

$$\Rightarrow 4x = 40$$

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

$$\Rightarrow x = 10$$

Ans: (D) 10

18. If $8x - 36 = 39 - 7x$, then $x =$

$$8x - 36 = 39 - 7x$$

$$\Rightarrow 8x + 7x = 39 + 36$$

$$\Rightarrow 15x = 75$$

$$\Rightarrow x = \frac{75}{15}$$

$$\Rightarrow x = 5$$

Ans: (A) 5

19. The solution of $9x - 27 + 6x = -49 + 13x$ is

$$9x - 27 + 6x = -49 + 13x$$

$$\Rightarrow 15x - 27 = -49 + 13x$$

$$\Rightarrow 15x - 13x = -49 + 27$$

$$\Rightarrow 2x = -22$$

$$\Rightarrow x = \frac{-22}{2}$$

$$\Rightarrow x = -11$$

Ans: (B) -11

20. The solution of $3x - 81 = -285 + 4x$ is

$$3x - 81 = -285 + 4x$$

$$\Rightarrow 3x - 4x = -285 + 81$$

$$\Rightarrow (-1)x = -204$$

$$\Rightarrow x = \frac{-204}{-1}$$

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

$$\Rightarrow x = 204$$

Ans: (B) 204

21. Solve $-8x - 2 - 10x = 34$. Then $x =$

$$-8x - 2 - 10x = 34$$

$$\Rightarrow -18x - 2 = 34$$

$$\Rightarrow -18x = 34 + 2$$

$$\Rightarrow -18x = 36$$

$$\Rightarrow x = \frac{36}{-18}$$

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

$$\Rightarrow x = -2$$

Ans: (C) -2

22. The sum of two integers is 107. If one of them is 414, the other is

Let the other integer be x .

$$x + 414 = 107$$

$$\Rightarrow x = 107 - 414$$

$$\Rightarrow x = -307$$

Ans: (B) -307

23. What number should be added to -58 to get -290 ?

Let the number be x .

$$-58 + x = -290$$

$$\Rightarrow x = -290 - (-58)$$

$$\Rightarrow x = -290 + 58$$

$$\Rightarrow x = -232$$

Ans: (D) -232

24. What number should be subtracted from 138 to get 103?

Let the number be x .

$$138 - x = 103$$

$$\Rightarrow -x = 103 - 138$$

$$\Rightarrow -x = -35$$

$$\Rightarrow x = 35$$

Ans: (C) 35

25. The product of two integers is -644 . If one of them is 23, the other is

Let the other integer be x .

$$x \times 23 = -644$$

$$\Rightarrow x = \frac{-644}{23}$$

Long division: $64 \div 23 = 2$, remainder 18; $184 \div 23 = 8$, remainder 0

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

$$\Rightarrow x = -28$$

Ans: (A) -28
