

Simple Equations (on Integers)

MCQ Test, Set 06

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 $x + 29 = -61$, then $x =$

- A.** 90 **B.** -32 **C.** -90 **D.** 32

2. Solve $x + 66 = 25$. Then $x =$

- A.** -41 **B.** 41 **C.** 91 **D.** -91

3. The solution of $x - 47 = -35$ is

- A.** -82 **B.** -12 **C.** 12 **D.** 82

4. Solve $x - 60 = 58$. Then $x =$

- A.** 2 **B.** 118 **C.** -118 **D.** -2

5. Solve $4 \times x = 308$. Then $x =$

- A.** 770 **B.** 304 **C.** 1232 **D.** 77

6. If $\frac{x}{3} = 41$, then $x =$

- A.** 123 **B.** 44 **C.** $\frac{41}{3}$ **D.** 38

7. Which of the following equations has the solution $x = 84$?

- A.** $x - 36 = -48$ **B.** $x - 36 = 48$ **C.** $x + 36 = 48$ **D.** $x + 36 = -48$

8. Which of the following equations has the solution $x = 19$?

- A.** $x - 7 = 133$ **B.** $x \times 7 = 133$ **C.** $\frac{x}{7} = 133$ **D.** $x + 7 = 133$

9. Solve $x + 16513 = 102992$. Then $x =$

- A.** 86479 **B.** 119505 **C.** 114481 **D.** -86479

10. The solution of $x \times 26 = 39104$ is

- A.** 15040 **B.** 154 **C.** 1504 **D.** 1540

11. Solve $\frac{x}{-6} = 117$. Then $x =$

- A.** 702 **B.** $\frac{39}{2}$ **C.** -702 **D.** $-\frac{39}{2}$

12. Solve $\frac{x}{19} = -42$. Then $x =$
A. $\frac{42}{19}$ **B.** 798 **C.** $-\frac{42}{19}$ **D.** -798
-
13. Solve $8x + 115 = -133$. Then $x =$
A. 31 **B.** $-\frac{9}{4}$ **C.** -248 **D.** -31
-
14. If $2x - 83 = -71$, then $x =$
A. 6 **B.** -6 **C.** 12 **D.** -77
-
15. Solve $\frac{x}{7} - 79 = 16$. Then $x =$
A. -665 **B.** 665 **C.** -441 **D.** $\frac{95}{7}$
-
16. The solution of $\frac{6x}{7} + 23 = 11$ is
A. $-\frac{72}{7}$ **B.** -84 **C.** $\frac{119}{3}$ **D.** -14
-
17. The solution of $\frac{5x}{4} - 21 = -71$ is
A. $-\frac{125}{2}$ **B.** $-\frac{368}{5}$ **C.** -200 **D.** -40
-
18. Solve $6x - 14 = -25 - 5x$. Then $x =$
A. 1 **B.** -11 **C.** -1 **D.** $-\frac{39}{11}$
-
19. The solution of $4x - 3 + 8x = -24 + 9x$ is
A. 7 **B.** -9 **C.** -7 **D.** $\frac{21}{5}$
-
20. The solution of $3x - 32 = 61 + 6x$ is
A. $-\frac{29}{3}$ **B.** $\frac{31}{3}$ **C.** 31 **D.** -31
-
21. Solve $64 - 9x = 145$. Then $x =$
A. 9 **B.** -9 **C.** 81 **D.** $-\frac{209}{9}$
-
22. The sum of two integers is 849. If one of them is 71, the other is
A. 778 **B.** -778 **C.** -920 **D.** 920
-
23. What number should be added to -172 to get 233?
A. 405 **B.** -405 **C.** -61 **D.** 61
-
24. What number should be subtracted from -98 to get -3 ?
A. 101 **B.** -95 **C.** -101 **D.** 95
-
25. The difference of two integers is 41. If the larger of them is 105, the smaller is
A. -146 **B.** -64 **C.** 146 **D.** 64
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Key sheet

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

Solutions

1. If $x + 29 = -61$, then $x =$

$$x + 29 = -61$$

$$\Rightarrow x = -61 - 29$$

$$\Rightarrow x = -90$$

Ans: (C) -90

2. Solve $x + 66 = 25$. Then $x =$

$$x + 66 = 25$$

$$\Rightarrow x = 25 - 66$$

$$\Rightarrow x = -41$$

Ans: (A) -41

3. The solution of $x - 47 = -35$ is

$$x - 47 = -35$$

$$\Rightarrow x = -35 + 47$$

$$\Rightarrow x = 12$$

Ans: (C) 12

4. Solve $x - 60 = 58$. Then $x =$

$$x - 60 = 58$$

$$\Rightarrow x = 58 + 60$$

$$\Rightarrow x = 118$$

Ans: (B) 118

5. Solve $4 \times x = 308$. Then $x =$

$$4 \times x = 308$$

$$\Rightarrow x = \frac{308}{4}$$

$$\Rightarrow x = 77$$

Ans: (D) 77

6. If $\frac{x}{3} = 41$, then $x =$

$$\frac{x}{3} = 41$$

$$\Rightarrow x = 41 \times 3$$

$$\Rightarrow x = 123$$

Ans: (A) 123

7. Which of the following equations has the solution $x = 84$?

Solve each one:

$$x + 36 = 48 \Rightarrow x = 48 - 36 = 12$$

$$x - 36 = 48 \Rightarrow x = 48 + 36 = 84$$

$$x + 36 = -48 \Rightarrow x = -48 - 36 = -84$$

$$x - 36 = -48 \Rightarrow x = -48 + 36 = -12$$

Only $x - 36 = 48$ gives $x = 84$.

Ans: (B) $x - 36 = 48$

8. Which of the following equations has the solution $x = 19$?

Solve each one:

$$x + 7 = 133 \Rightarrow x = 133 - 7 = 126$$

$$x - 7 = 133 \Rightarrow x = 133 + 7 = 140$$

$$x \times 7 = 133 \Rightarrow x = \frac{133}{7} = 19$$

$$\frac{x}{7} = 133 \Rightarrow x = 133 \times 7 = 931$$

Only $x \times 7 = 133$ gives $x = 19$.

Ans: (B) $x \times 7 = 133$

9. Solve $x + 16513 = 102992$. Then $x =$

$$x + 16513 = 102992$$

$$\Rightarrow x = 102992 - 16513$$

$$\text{Column subtraction: } 102992 - 16513 = 86479$$

$$\Rightarrow x = 86479$$

Ans: (A) 86479

10. The solution of $x \times 26 = 39104$ is

$$x \times 26 = 39104$$

$$\Rightarrow x = \frac{39104}{26}$$

Long division: $39 \div 26 = 1$, remainder 13; $131 \div 26 = 5$, remainder 1; $10 \div 26 = 0$, remainder 10;

$$104 \div 26 = 4, \text{ remainder } 0$$

$$\Rightarrow x = 1504$$

Ans: (C) 1504

11. Solve $\frac{x}{-6} = 117$. Then $x =$

$$\frac{x}{-6} = 117$$

$$\Rightarrow x = 117 \times (-6)$$

$$+ \times - = -$$

$$\Rightarrow x = -702$$

Ans: (C) -702

12. Solve $\frac{x}{19} = -42$. Then $x =$

$$\frac{x}{19} = -42$$

$$\Rightarrow x = (-42) \times 19$$

$$- \times + = -$$

$$\Rightarrow x = -798$$

Ans: (D) -798

13. Solve $8x + 115 = -133$. Then $x =$

$$8x + 115 = -133$$

$$\Rightarrow 8x = -133 - 115$$

$$\Rightarrow 8x = -248$$

$$\Rightarrow x = \frac{-248}{8}$$

$$\Rightarrow x = -31$$

Ans: (D) -31

14. If $2x - 83 = -71$, then $x =$

$$2x - 83 = -71$$

$$\Rightarrow 2x = -71 + 83$$

$$\Rightarrow 2x = 12$$

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

$$\Rightarrow x = 6$$

Ans: (A) 6

15. Solve $\frac{x}{7} - 79 = 16$. Then $x =$

$$\frac{x}{7} - 79 = 16$$

$$\Rightarrow \frac{x}{7} = 16 + 79$$

$$\Rightarrow \frac{x}{7} = 95$$

$$\Rightarrow x = 95 \times 7$$

$$\Rightarrow x = 665$$

Ans: (B) 665

16. The solution of $\frac{6x}{7} + 23 = 11$ is

$$\frac{6x}{7} + 23 = 11$$

$$\Rightarrow \frac{6x}{7} = 11 - 23$$

$$\Rightarrow \frac{6x}{7} = -12$$

$$\Rightarrow 6x = -12 \times 7$$

$$\Rightarrow 6x = -84$$

$$\Rightarrow x = \frac{-84}{6}$$

$$\Rightarrow x = -14$$

Ans: (D) -14

17. The solution of $\frac{5x}{4} - 21 = -71$ is

$$\frac{5x}{4} - 21 = -71$$

$$\Rightarrow \frac{5x}{4} = -71 + 21$$

$$\Rightarrow \frac{5x}{4} = -50$$

$$\Rightarrow 5x = -50 \times 4$$

$$\Rightarrow 5x = -200$$

$$\Rightarrow x = \frac{-200}{5}$$

$$\Rightarrow x = -40$$

Ans: (D) -40

18. Solve $6x - 14 = -25 - 5x$. Then $x =$

$$6x - 14 = -25 - 5x$$

$$\Rightarrow 6x + 5x = -25 + 14$$

$$\Rightarrow 11x = -11$$

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

$$\Rightarrow x = -1$$

Ans: (C) -1

19. The solution of $4x - 3 + 8x = -24 + 9x$ is

$$4x - 3 + 8x = -24 + 9x$$

$$\Rightarrow 12x - 3 = -24 + 9x$$

$$\Rightarrow 12x - 9x = -24 + 3$$

$$\Rightarrow 3x = -21$$

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

$$\Rightarrow x = -7$$

Ans: (C) -7

20. The solution of $3x - 32 = 61 + 6x$ is

$$3x - 32 = 61 + 6x$$

$$\Rightarrow 3x - 6x = 61 + 32$$

$$\Rightarrow -3x = 93$$

$$\Rightarrow x = \frac{93}{-3}$$

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

$$\Rightarrow x = -31$$

Ans: (D) -31

21. Solve $64 - 9x = 145$. Then $x =$

$$64 - 9x = 145$$

$$\Rightarrow -9x = 145 - 64$$

$$\Rightarrow -9x = 81$$

$$\Rightarrow x = \frac{81}{-9}$$

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

$$\Rightarrow x = -9$$

Ans: (B) -9

22. The sum of two integers is 849. If one of them is 71, the other is

Let the other integer be x .

$$x + 71 = 849$$

$$\Rightarrow x = 849 - 71$$

$$\Rightarrow x = 778$$

Ans: (A) 778

23. What number should be added to -172 to get 233?

Let the number be x .

$$-172 + x = 233$$

$$\Rightarrow x = 233 - (-172)$$

$$\Rightarrow x = 233 + 172$$

$$\Rightarrow x = 405$$

Ans: (A) 405

24. What number should be subtracted from -98 to get -3 ?

Let the number be x .

$$-98 - x = -3$$

$$\Rightarrow -x = -3 + 98$$

$$\Rightarrow -x = 95$$

$$\Rightarrow x = -95$$

Ans: (B) -95

25. The difference of two integers is 41. If the larger of them is 105, the smaller is

Let the smaller integer be x .

Larger $-$ smaller $=$ difference

$$105 - x = 41$$

$$\Rightarrow -x = 41 - 105$$

$$\Rightarrow -x = -64$$

$$\Rightarrow x = 64$$

Ans: (D) 64
