

Simple Equations (on Integers)

MCQ Test, Set 10

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 $x + 42 = -86$, then $x =$
A. -44 **B.** 44 **C.** 128 **D.** -128
2. Solve $x + 46 = 86$. Then $x =$
A. 132 **B.** -40 **C.** 40 **D.** -132
3. If $x - 85 = -93$, then $x =$
A. 178 **B.** 8 **C.** -178 **D.** -8
4. The solution of $x - 51 = 31$ is
A. -20 **B.** 20 **C.** 82 **D.** -82
5. Solve $3 \times x = 267$. Then $x =$
A. 890 **B.** 264 **C.** 801 **D.** 89
6. Solve $\frac{x}{3} = 64$. Then $x =$
A. 192 **B.** 61 **C.** 67 **D.** $\frac{64}{3}$
7. Which of the following equations has the solution $x = -43$?
A. $x + 23 = -20$ **B.** $x + 23 = 20$ **C.** $x - 23 = 20$ **D.** $x - 23 = -20$
8. Which of the following equations has the solution $x = 10$?
A. $x - 7 = 70$ **B.** $x \times 7 = 70$ **C.** $x + 7 = 70$ **D.** $\frac{x}{7} = 70$
9. Solve $x + 28347 = 143851$. Then $x =$
A. 172198 **B.** -115504 **C.** 115504 **D.** 125516
10. If $x \times 23 = 139035$, then $x =$
A. 6045 **B.** 645 **C.** 60450 **D.** 6405
11. If $\frac{x}{-7} = 150$, then $x =$
A. $\frac{150}{7}$ **B.** 1050 **C.** -1050 **D.** $-\frac{150}{7}$

12. Solve $\frac{x}{2} = -201$. Then $x =$
A. -402 B. $-\frac{201}{2}$ C. $\frac{201}{2}$ D. 402
-
13. If $7x + 108 = -165$, then $x =$
A. 39 B. -39 C. -273 D. $-\frac{57}{7}$
-
14. Solve $2x - 148 = -124$. Then $x =$
A. 24 B. 12 C. -136 D. -12
-
15. Solve $\frac{x}{3} - 37 = -69$. Then $x =$
A. 96 B. -318 C. -96 D. $-\frac{32}{3}$
-
16. The solution of $\frac{5x}{3} + 38 = 13$ is
A. -15 B. $\frac{153}{5}$ C. -75 D. $-\frac{125}{3}$
-
17. Solve $\frac{3x}{8} - 11 = 16$. Then $x =$
A. $\frac{81}{8}$ B. 216 C. $\frac{40}{3}$ D. 72
-
18. The solution of $3x - 23 = -63 - 7x$ is
A. 10 B. 4 C. $-\frac{43}{5}$ D. -4
-
19. The solution of $8x + 23 + 3x = -2 + 6x$ is
A. $-\frac{25}{2}$ B. 5 C. -5 D. $\frac{21}{5}$
-
20. The solution of $4x - 179 = -437 + 5x$ is
A. -258 B. 258 C. $-\frac{86}{3}$ D. 616
-
21. If $65 - 7x = 170$, then $x =$
A. -15 B. $-\frac{235}{7}$ C. 105 D. 15
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22. The sum of two integers is 920 . If one of them is 963 , the other is
A. -1883 B. -43 C. 1883 D. 43
-
23. What number should be added to 160 to get -266 ?
A. -426 B. 106 C. -106 D. 426
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24. What number should be subtracted from 114 to get 43 ?
A. -71 B. 71 C. -157 D. 157
-
25. The difference of two integers is 46 . If the larger of them is 47 , the smaller is
A. -1 B. 93 C. -93 D. 1
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Key sheet

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

Solutions

1. If $x + 42 = -86$, then $x =$

$$x + 42 = -86$$

$$\Rightarrow x = -86 - 42$$

$$\Rightarrow x = -128$$

Ans: (D) -128

2. Solve $x + 46 = 86$. Then $x =$

$$x + 46 = 86$$

$$\Rightarrow x = 86 - 46$$

$$\Rightarrow x = 40$$

Ans: (C) 40

3. If $x - 85 = -93$, then $x =$

$$x - 85 = -93$$

$$\Rightarrow x = -93 + 85$$

$$\Rightarrow x = -8$$

Ans: (D) -8

4. The solution of $x - 51 = 31$ is

$$x - 51 = 31$$

$$\Rightarrow x = 31 + 51$$

$$\Rightarrow x = 82$$

Ans: (C) 82

5. Solve $3 \times x = 267$. Then $x =$

$$3 \times x = 267$$

$$\Rightarrow x = \frac{267}{3}$$

$$\Rightarrow x = 89$$

Ans: (D) 89

6. Solve $\frac{x}{3} = 64$. Then $x =$

$$\frac{x}{3} = 64$$

$$\Rightarrow x = 64 \times 3$$

$$\Rightarrow x = 192$$

Ans: (A) 192

7. Which of the following equations has the solution $x = -43$?

Solve each one:

$$x + 23 = 20 \Rightarrow x = 20 - 23 = -3$$

$$x - 23 = 20 \Rightarrow x = 20 + 23 = 43$$

$$x + 23 = -20 \Rightarrow x = -20 - 23 = -43$$

$$x - 23 = -20 \Rightarrow x = -20 + 23 = 3$$

Only $x + 23 = -20$ gives $x = -43$.

Ans: (A) $x + 23 = -20$

8. Which of the following equations has the solution $x = 10$?

Solve each one:

$$x + 7 = 70 \Rightarrow x = 70 - 7 = 63$$

$$x - 7 = 70 \Rightarrow x = 70 + 7 = 77$$

$$x \times 7 = 70 \Rightarrow x = \frac{70}{7} = 10$$

$$\frac{x}{7} = 70 \Rightarrow x = 70 \times 7 = 490$$

Only $x \times 7 = 70$ gives $x = 10$.

Ans: (B) $x \times 7 = 70$

9. Solve $x + 28347 = 143851$. Then $x =$

$$x + 28347 = 143851$$

$$\Rightarrow x = 143851 - 28347$$

$$\text{Column subtraction: } 143851 - 28347 = 115504$$

$$\Rightarrow x = 115504$$

Ans: (C) 115504

10. If $x \times 23 = 139035$, then $x =$

$$x \times 23 = 139035$$

$$\Rightarrow x = \frac{139035}{23}$$

Long division: $139 \div 23 = 6$, remainder 1; $10 \div 23 = 0$, remainder 10; $103 \div 23 = 4$, remainder 11;

$115 \div 23 = 5$, remainder 0

$$\Rightarrow x = 6045$$

Ans: (A) 6045

11. If $\frac{x}{-7} = 150$, then $x =$

$$\frac{x}{-7} = 150$$

$$\Rightarrow x = 150 \times (-7)$$

$$+ \times - = -$$

$$\Rightarrow x = -1050$$

Ans: (C) -1050

12. Solve $\frac{x}{2} = -201$. Then $x =$

$$\frac{x}{2} = -201$$

$$\Rightarrow x = (-201) \times 2$$

$$- \times + = -$$

$$\Rightarrow x = -402$$

Ans: (A) -402

13. If $7x + 108 = -165$, then $x =$

$$7x + 108 = -165$$

$$\Rightarrow 7x = -165 - 108$$

$$\Rightarrow 7x = -273$$

$$\Rightarrow x = \frac{-273}{7}$$

$$\Rightarrow x = -39$$

Ans: (B) -39

14. Solve $2x - 148 = -124$. Then $x =$

$$2x - 148 = -124$$

$$\Rightarrow 2x = -124 + 148$$

$$\Rightarrow 2x = 24$$

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

$$\Rightarrow x = 12$$

Ans: (B) 12

15. Solve $\frac{x}{3} - 37 = -69$. Then $x =$

$$\frac{x}{3} - 37 = -69$$

$$\Rightarrow \frac{x}{3} = -69 + 37$$

$$\Rightarrow \frac{x}{3} = -32$$

$$\Rightarrow x = -32 \times 3$$

$$\Rightarrow x = -96$$

Ans: (C) -96

16. The solution of $\frac{5x}{3} + 38 = 13$ is

$$\frac{5x}{3} + 38 = 13$$

$$\Rightarrow \frac{5x}{3} = 13 - 38$$

$$\Rightarrow \frac{5x}{3} = -25$$

$$\Rightarrow 5x = -25 \times 3$$

$$\Rightarrow 5x = -75$$

$$\Rightarrow x = \frac{-75}{5}$$

$$\Rightarrow x = -15$$

Ans: (A) -15

17. Solve $\frac{3x}{8} - 11 = 16$. Then $x =$

$$\frac{3x}{8} - 11 = 16$$

$$\Rightarrow \frac{3x}{8} = 16 + 11$$

$$\Rightarrow \frac{3x}{8} = 27$$

$$\Rightarrow 3x = 27 \times 8$$

$$\Rightarrow 3x = 216$$

$$\Rightarrow x = \frac{216}{3}$$

$$\Rightarrow x = 72$$

Ans: (D) 72

18. The solution of $3x - 23 = -63 - 7x$ is

$$3x - 23 = -63 - 7x$$

$$\Rightarrow 3x + 7x = -63 + 23$$

$$\Rightarrow 10x = -40$$

$$\Rightarrow x = \frac{-40}{10}$$

$$\Rightarrow x = -4$$

Ans: (D) -4

19. The solution of $8x + 23 + 3x = -2 + 6x$ is

$$8x + 23 + 3x = -2 + 6x$$

$$\Rightarrow 11x + 23 = -2 + 6x$$

$$\Rightarrow 11x - 6x = -2 - 23$$

$$\Rightarrow 5x = -25$$

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

$$\Rightarrow x = -5$$

Ans: (C) -5

20. The solution of $4x - 179 = -437 + 5x$ is

$$4x - 179 = -437 + 5x$$

$$\Rightarrow 4x - 5x = -437 + 179$$

$$\Rightarrow (-1)x = -258$$

$$\Rightarrow x = \frac{-258}{-1}$$

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

$$\Rightarrow x = 258$$

Ans: (B) 258

21. If $65 - 7x = 170$, then $x =$

$$65 - 7x = 170$$

$$\Rightarrow -7x = 170 - 65$$

$$\Rightarrow -7x = 105$$

$$\Rightarrow x = \frac{105}{-7}$$

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

$$\Rightarrow x = -15$$

Ans: (A) -15

22. The sum of two integers is 920. If one of them is 963, the other is

Let the other integer be x .

$$x + 963 = 920$$

$$\Rightarrow x = 920 - 963$$

$$\Rightarrow x = -43$$

Ans: (B) -43

23. What number should be added to 160 to get -266 ?

Let the number be x .

$$160 + x = -266$$

$$\Rightarrow x = -266 - 160$$

$$\Rightarrow x = -426$$

Ans: (A) -426

24. What number should be subtracted from 114 to get 43?

Let the number be x .

$$114 - x = 43$$

$$\Rightarrow -x = 43 - 114$$

$$\Rightarrow -x = -71$$

$$\Rightarrow x = 71$$

Ans: (B) 71

25. The difference of two integers is 46. If the larger of them is 47, the smaller is

Let the smaller integer be x .

Larger $-$ smaller $=$ difference

$$47 - x = 46$$

$$\Rightarrow -x = 46 - 47$$

$$\Rightarrow -x = -1$$

$$\Rightarrow x = 1$$

Ans: (D) 1
