

Simple Equations (on Integers)

MCQ Test, Set 08

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. Solve $x + 35 = -15$. Then $x =$

- A.** 20 **B.** -50 **C.** 50 **D.** -20

2. If $x + 41 = 31$, then $x =$

- A.** -72 **B.** 72 **C.** -10 **D.** 10

3. If $x - 97 = -31$, then $x =$

- A.** -128 **B.** 128 **C.** -66 **D.** 66

4. If $x - 26 = 5$, then $x =$

- A.** 31 **B.** -21 **C.** 21 **D.** -31

5. If $8 \times x = 368$, then $x =$

- A.** 460 **B.** 360 **C.** 46 **D.** 2944

6. The solution of $\frac{x}{5} = 44$ is

- A.** 220 **B.** 49 **C.** 39 **D.** $\frac{44}{5}$

7. Which of the following equations has the solution $x = -50$?

- A.** $x - 30 = -80$ **B.** $x + 30 = 80$ **C.** $x - 30 = 80$ **D.** $x + 30 = -80$

8. Which of the following equations has the solution $x = 1029$?

- A.** $x + 7 = 147$ **B.** $\frac{x}{7} = 147$ **C.** $x - 7 = 147$ **D.** $x \times 7 = 147$

9. The solution of $x + 60851 = 192048$ is

- A.** -131197 **B.** 132817 **C.** 252899 **D.** 131197

10. Solve $x \times 34 = 30634$. Then $x =$

- A.** 910 **B.** 91 **C.** 901 **D.** 9010

11. Solve $\frac{x}{-9} = 268$. Then $x =$

- A.** $-\frac{268}{9}$ **B.** $\frac{268}{9}$ **C.** -2412 **D.** 2412

12. Solve $\frac{x}{7} = -147$. Then $x =$
A. 1029 **B.** -1029 **C.** 21 **D.** -21
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13. The solution of $6x + 118 = 88$ is
A. 5 **B.** $\frac{103}{3}$ **C.** -30 **D.** -5
-
14. The solution of $2x - 122 = -160$ is
A. -19 **B.** 19 **C.** -141 **D.** -38
-
15. If $\frac{x}{7} + 42 = 26$, then $x =$
A. 112 **B.** -112 **C.** 476 **D.** $-\frac{16}{7}$
-
16. If $\frac{4x}{3} + 40 = 88$, then $x =$
A. 96 **B.** 36 **C.** 144 **D.** 64
-
17. Solve $\frac{3x}{8} - 35 = -59$. Then $x =$
A. -192 **B.** $-\frac{752}{3}$ **C.** -9 **D.** -64
-
18. The solution of $9x + 35 = 5 - 6x$ is
A. -10 **B.** $\frac{8}{3}$ **C.** 2 **D.** -2
-
19. If $2x - 6 + 5x = 3 + 4x$, then $x =$
A. 3 **B.** -1 **C.** $-\frac{9}{2}$ **D.** -3
-
20. The solution of $3x - 37 = 62 + 6x$ is
A. 33 **B.** $-\frac{25}{3}$ **C.** 11 **D.** -33
-
21. If $77 - 8x = 301$, then $x =$
A. $-\frac{189}{4}$ **B.** 28 **C.** -28 **D.** 224
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22. The sum of two integers is 814. If one of them is -830, the other is
A. 1644 **B.** -16 **C.** -1644 **D.** 16
-
23. What number should be added to -284 to get 42?
A. -326 **B.** -242 **C.** 242 **D.** 326
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24. What number should be subtracted from -4 to get 116?
A. -112 **B.** -120 **C.** 120 **D.** 112
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25. The difference of two integers is 61. If the smaller of them is 44, the larger is
A. -17 **B.** -105 **C.** 105 **D.** 17
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Key sheet

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

Solutions

1. Solve $x + 35 = -15$. Then $x =$

$$x + 35 = -15$$

$$\Rightarrow x = -15 - 35$$

$$\Rightarrow x = -50$$

Ans: (B) -50

2. If $x + 41 = 31$, then $x =$

$$x + 41 = 31$$

$$\Rightarrow x = 31 - 41$$

$$\Rightarrow x = -10$$

Ans: (C) -10

3. If $x - 97 = -31$, then $x =$

$$x - 97 = -31$$

$$\Rightarrow x = -31 + 97$$

$$\Rightarrow x = 66$$

Ans: (D) 66

4. If $x - 26 = 5$, then $x =$

$$x - 26 = 5$$

$$\Rightarrow x = 5 + 26$$

$$\Rightarrow x = 31$$

Ans: (A) 31

5. If $8 \times x = 368$, then $x =$

$$8 \times x = 368$$

$$\Rightarrow x = \frac{368}{8}$$

$$\Rightarrow x = 46$$

Ans: (C) 46

6. The solution of $\frac{x}{5} = 44$ is

$$\frac{x}{5} = 44$$

$$\Rightarrow x = 44 \times 5$$

$$\Rightarrow x = 220$$

Ans: (A) 220

7. Which of the following equations has the solution $x = -50$?

Solve each one:

$$x + 30 = 80 \Rightarrow x = 80 - 30 = 50$$

$$x - 30 = 80 \Rightarrow x = 80 + 30 = 110$$

$$x + 30 = -80 \Rightarrow x = -80 - 30 = -110$$

$$x - 30 = -80 \Rightarrow x = -80 + 30 = -50$$

Only $x - 30 = -80$ gives $x = -50$.

Ans: (A) $x - 30 = -80$

8. Which of the following equations has the solution $x = 1029$?

Solve each one:

$$x + 7 = 147 \Rightarrow x = 147 - 7 = 140$$

$$x - 7 = 147 \Rightarrow x = 147 + 7 = 154$$

$$x \times 7 = 147 \Rightarrow x = \frac{147}{7} = 21$$

$$\frac{x}{7} = 147 \Rightarrow x = 147 \times 7 = 1029$$

Only $\frac{x}{7} = 147$ gives $x = 1029$.

Ans: (B) $\frac{x}{7} = 147$

9. The solution of $x + 60851 = 192048$ is

$$x + 60851 = 192048$$

$$\Rightarrow x = 192048 - 60851$$

$$\text{Column subtraction: } 192048 - 60851 = 131197$$

$$\Rightarrow x = 131197$$

Ans: (D) 131197

10. Solve $x \times 34 = 30634$. Then $x =$

$$x \times 34 = 30634$$

$$\Rightarrow x = \frac{30634}{34}$$

Long division: $306 \div 34 = 9$, remainder 0; $3 \div 34 = 0$, remainder 3; $34 \div 34 = 1$, remainder 0

$$\Rightarrow x = 901$$

Ans: (C) 901

11. Solve $\frac{x}{-9} = 268$. Then $x =$

$$\frac{x}{-9} = 268$$

$$\Rightarrow x = 268 \times (-9)$$

$$+ \times - = -$$

$$\Rightarrow x = -2412$$

Ans: (C) -2412

12. Solve $\frac{x}{7} = -147$. Then $x =$

$$\frac{x}{7} = -147$$

$$\Rightarrow x = (-147) \times 7$$

$$- \times + = -$$

$$\Rightarrow x = -1029$$

Ans: (B) -1029

13. The solution of $6x + 118 = 88$ is

$$6x + 118 = 88$$

$$\Rightarrow 6x = 88 - 118$$

$$\Rightarrow 6x = -30$$

$$\Rightarrow x = \frac{-30}{6}$$

$$\Rightarrow x = -5$$

Ans: (D) -5

14. The solution of $2x - 122 = -160$ is

$$2x - 122 = -160$$

$$\Rightarrow 2x = -160 + 122$$

$$\Rightarrow 2x = -38$$

$$\Rightarrow x = \frac{-38}{2}$$

$$\Rightarrow x = -19$$

Ans: (A) -19

15. If $\frac{x}{7} + 42 = 26$, then $x =$

$$\frac{x}{7} + 42 = 26$$

$$\Rightarrow \frac{x}{7} = 26 - 42$$

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

$$\Rightarrow x = -16 \times 7$$

$$\Rightarrow x = -112$$

Ans: (B) -112

16. If $\frac{4x}{3} + 40 = 88$, then $x =$

$$\frac{4x}{3} + 40 = 88$$

$$\Rightarrow \frac{4x}{3} = 88 - 40$$

$$\Rightarrow \frac{4x}{3} = 48$$

$$\Rightarrow 4x = 48 \times 3$$

$$\Rightarrow 4x = 144$$

$$\Rightarrow x = \frac{144}{4}$$

$$\Rightarrow x = 36$$

Ans: (B) 36

17. Solve $\frac{3x}{8} - 35 = -59$. Then $x =$

$$\frac{3x}{8} - 35 = -59$$

$$\Rightarrow \frac{3x}{8} = -59 + 35$$

$$\Rightarrow \frac{3x}{8} = -24$$

$$\Rightarrow 3x = -24 \times 8$$

$$\Rightarrow 3x = -192$$

$$\Rightarrow x = \frac{-192}{3}$$

$$\Rightarrow x = -64$$

Ans: (D) -64

18. The solution of $9x + 35 = 5 - 6x$ is

$$9x + 35 = 5 - 6x$$

$$\Rightarrow 9x + 6x = 5 - 35$$

$$\Rightarrow 15x = -30$$

$$\Rightarrow x = \frac{-30}{15}$$

$$\Rightarrow x = -2$$

Ans: (D) -2

19. If $2x - 6 + 5x = 3 + 4x$, then $x =$

$$2x - 6 + 5x = 3 + 4x$$

$$\Rightarrow 7x - 6 = 3 + 4x$$

$$\Rightarrow 7x - 4x = 3 + 6$$

$$\Rightarrow 3x = 9$$

$$\Rightarrow x = \frac{9}{3}$$

$$\Rightarrow x = 3$$

Ans: (A) 3

20. The solution of $3x - 37 = 62 + 6x$ is

$$3x - 37 = 62 + 6x$$

$$\Rightarrow 3x - 6x = 62 + 37$$

$$\Rightarrow -3x = 99$$

$$\Rightarrow x = \frac{99}{-3}$$

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

$$\Rightarrow x = -33$$

Ans: (D) -33

21. If $77 - 8x = 301$, then $x =$

$$77 - 8x = 301$$

$$\Rightarrow -8x = 301 - 77$$

$$\Rightarrow -8x = 224$$

$$\Rightarrow x = \frac{224}{-8}$$

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

$$\Rightarrow x = -28$$

Ans: (C) -28

22. The sum of two integers is 814. If one of them is -830 , the other is

Let the other integer be x .

$$x + (-830) = 814$$

$$\Rightarrow x = 814 - (-830)$$

$$\Rightarrow x = 814 + 830$$

$$\Rightarrow x = 1644$$

Ans: (A) 1644

23. What number should be added to -284 to get 42?

Let the number be x .

$$-284 + x = 42$$

$$\Rightarrow x = 42 - (-284)$$

$$\Rightarrow x = 42 + 284$$

$$\Rightarrow x = 326$$

Ans: (D) 326

24. What number should be subtracted from -4 to get 116?

Let the number be x .

$$-4 - x = 116$$

$$\Rightarrow -x = 116 + 4$$

$$\Rightarrow -x = 120$$

$$\Rightarrow x = -120$$

Ans: (B) -120

25. The difference of two integers is 61. If the smaller of them is 44, the larger is

Let the larger integer be x .

Larger $-$ smaller $=$ difference

$$x - 44 = 61$$

$$\Rightarrow x = 61 + 44$$

$$\Rightarrow x = 105$$

Ans: (C) 105
