

A.REI.B.3: Solving Linear Equations 1b

- 1 Which value of p is the solution of $5p - 1 = 2p + 20$?
- 2 The solution of the equation $5 - 2x = -4x - 7$ is
- 3 Which value of x is the solution of the equation $2(x - 4) + 7 = 3$?
- 4 What is the value of x in the equation $2(x - 4) = 4(2x + 1)$?
- 5 If $12x = 4(x + 5)$, then x equals
- 6 Solve for x : $15x - 3(3x + 4) = 6$
- 7 What is the solution of the equation $3y - 5y + 10 = 36$
- 8 If $2x + 5 = -25$ and $-3m - 6 = 48$, what is the product of x and m ?
- 9 If $2(x + 3) = x + 10$, then x equals
- 10 If $3(x - 2) = 2x + 6$, the value of x is
- 11 What is the value of x in the equation $2(x - 3) + 1 = 19$?
- 12 What is the solution for the equation $x + 1 = x + 2$?
- 13 If $-2x + 3 = 7$ and $3x + 1 = 5 + y$, the value of y is
- 14 What is the value of x in the equation $5(2x - 7) = 15x - 10$?
- 15 What is the value of x in the equation $13x - 2(x + 4) = 8x + 1$?
- 16 What is the value of p in the equation $2(3p - 4) = 10$?
- 17 What is the value of n in the equation $3n - 8 = 32 - n$?
- 18 What is the value of x in the equation $6(x - 2) = 36 - 10x$?
- 19 What is the value of p in the equation $8p + 2 = 4p - 10$?
- 20 What is the value of x in the equation $5 - 3x = -7$?
- 21 If $3(x + 2) - 2(x + 1) = 8$, the value of x is
- 22 What is the value of m in the equation $2m - (m + 1) = 0$
- 23 Debbie solved the linear equation $3(x + 4) - 2 = 16$ as follows:

[Line 1]	$3(x + 4) - 2 = 16$
[Line 2]	$3(x + 4) = 18$
[Line 3]	$3x + 4 = 18$
[Line 4]	$3x = 14$
[Line 5]	$x = 4\frac{2}{3}$
- 24 Solve for x : $5(x - 2) = 2(10 + x)$
- 25 Solve for g : $3 + 2g = 5g - 9$
- 26 Solve algebraically for x :
 $3(x + 1) - 5x = 12 - (6x - 7)$

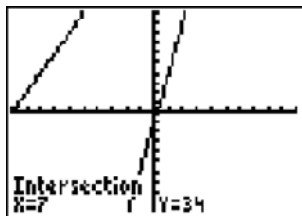
She made an error between lines

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Answer Section

1 ANS:

7



$$5p - 1 = 2p + 20$$

$$3p = 21$$

$$p = 7$$

REF: 080801ia

2 ANS:

-6

$$5 - 2x = -4x - 7$$

$$2x = -12$$

$$x = -6$$

REF: 011305ia

3 ANS:

2

$$2(x - 4) + 7 = 3$$

$$2x - 8 = -4$$

$$2x = 4$$

$$x = 2$$

REF: 061425ia

4 ANS:

-2

$$2(x - 4) = 4(2x + 1)$$

$$2x - 8 = 8x + 4$$

$$-12 = 6x$$

$$-2 = x$$

REF: 011106ia

5 ANS:

2.5

$$12x = 4(x + 5)$$

$$12x = 4x + 20$$

$$8x = 20$$

$$x = \frac{20}{8} = 2.5$$

REF: spring9802a

6 ANS:

3

$$15x - 3(3x + 4) = 6$$

$$15x - 9x - 12 = 6$$

$$6x = 18$$

$$x = 3$$

REF: 080015a

7 ANS:

-13

$$3y - 5y + 10 = 36$$

$$-2y = 26$$

$$y = -13$$

REF: 060214a

8 ANS:

270

$$2x + 5 = -25 \quad -3m - 6 = 48$$

$$2x = -30 \quad -3m = 54 \quad . \text{ The product of } x \text{ and } m \text{ is } 270.$$

$$x = -15 \quad m = -18$$

REF: 080219a

9 ANS:

4

$$2(x + 3) = x + 10$$

$$2x + 6 = x + 10$$

$$x = 4$$

REF: 010401a

10 ANS:

12

$$3(x-2) = 2x+6$$

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

$$x = 12$$

REF: 060404a

11 ANS:

12

$$2(x-3)+1 = 19$$

$$2x-6 = 18$$

$$2x = 24$$

$$x = 12$$

REF: 010904a

12 ANS:

There is no solution.

$$x+1 = x+2$$

$$1 \neq 2$$

REF: 010908a

13 ANS:

-10

$$-2x+3=7 \quad 3(-2)+1=5+y$$

$$-2x=4 \quad -5=5+y$$

$$x=-2 \quad y=-10$$

REF: 060519a

14 ANS:

-5

$$5(2x-7) = 15x-10$$

$$10x-35 = 15x-10$$

$$-25 = 5x$$

$$x = -5$$

REF: 010601a

15 ANS:

3

$$13x - 2(x + 4) = 8x + 1$$

$$13x - 2x - 8 = 8x + 1$$

$$11x = 8x + 9$$

$$3x = 9$$

$$x = 3$$

REF: 060602a

16 ANS:

3

$$2(3p - 4) = 10$$

$$6p - 8 = 10$$

$$6p = 18$$

$$p = 3$$

REF: 080602a

17 ANS:

10

$$3n - 8 = 32 - n$$

$$4n = 40$$

$$n = 10$$

REF: 010705a

18 ANS:

3

$$6(x - 2) = 36 - 10x$$

$$6x - 12 = 36 - 10x$$

$$16x = 48$$

$$x = 3$$

REF: 060702a

19 ANS:

-3

$$8p + 2 = 4p - 10$$

$$4p = -12$$

$$p = -3$$

REF: 010807a

20 ANS:

4

$$5 - 3x = -7$$

$$-3x = -12$$

$$x = 4$$

REF: 060810a

21 ANS:

4

$$3(x + 2) - 2(x + 1) = 8$$

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

$$x + 4 = 8$$

$$x = 4$$

REF: 060813a

22 ANS:

1

$$2m - (m + 1) = 0$$

$$2m - m - 1 = 0$$

$$m = 1$$

REF: 080812a

23 ANS:

2 and 3

Debbie failed to distribute the 3 properly.

REF: 011009ia

24 ANS:

$$5(x - 2) = 2(10 + x)$$

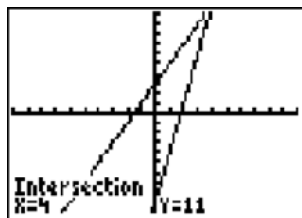
$$10. \quad 5x - 10 = 20 + 2x$$

$$3x = 30$$

$$x = 10$$

REF: 080731a

25 ANS:



4. $3 + 2g = 5g - 9$

$$12 = 3g$$

$$g = 4$$

REF: fall0732ia

26 ANS:

4. $3(x + 1) - 5x = 12 - (6x - 7)$

$$3x + 3 - 5x = 12 - 6x + 7$$

$$-2x + 3 = -6x + 19$$

$$4x = 16$$

$$x = 4$$

REF: 061238ia