

Homework #12

Solve:

1. $2x + 8 = 6$

9. $3x + 8 = 7x + 11$

17. $5(7 - x) = 7$

2. $7x - 12 = 5$

10. $7x - 1 = 5x - 5$

18. $6 - 2x = 10 + 4x$

3. $4x - 3 = 21$

11. $4(x + 9) = -1$

19. $9x + 10 = 11 - 4x$

4. $7 = 5 + 9x$

12. $7 - 5x = 4$

20. $3k + 7 = 9k - 4$

5. $4x + 6 = x$

13. $4(2x + 6) = 10(x + 2)$

21. $1.5x + 3 = 4x + 7$

6. $4 = 9 + 7x$

14. $4 - 11x = 9 + x$

22. $4y + 3 = 4(2 - y)$

7. $11x = x + 5$

15. $11x - 8 = x + 10$

23. $0.25x + 3 = 0.5x - 8$

8. $6x - 4 = 7$

16. $6x - 4 = 7x - 2$

24. $8x + 10 = 10x + 1$

Answers Homework #12

Solve: (Answers should be left in fraction form, unless whole numbers)

1. $2x + 8 = 6$

$$2x = -2$$

$$x = -1$$

2. $7x - 12 = 5$

$$7x = 17$$

$$x = \frac{17}{7}$$

3. $4x - 3 = 21$

$$4x = 24$$

$$x = 6$$

4. $7 = 5 + 9x$

$$2 = 9x$$

$$x = \frac{2}{9}$$

5. $4x + 6 = x$

$$3x = -6$$

$$x = -2$$

6. $4 = 9 + 7x$

$$-5 = 7x$$

$$x = -\frac{5}{7}$$

7. $11x = x + 5$

$$10x = 5$$

$$x = \frac{5}{10} = \frac{1}{2}$$

8. $6x - 4 = 7$

$$6x = 11$$

$$x = \frac{11}{6}$$

9. $3x + 8 = 7x + 11$

$$-3 = 4x$$

$$x = -\frac{3}{4}$$

10. $7x - 1 = 5x - 5$

$$2x = -4$$

$$x = -2$$

11. $4(x + 9) = -1$

$$4x + 36 = -1$$

$$x = -\frac{37}{4}$$

12. $7 - 5x = 4$

$$3 = 5x$$

$$x = \frac{3}{5}$$

13. $4(2x + 6) = 10(x + 2)$

$$8x + 24 = 10x + 20$$

$$4 = 2x$$

$$x = 2$$

14. $4 - 11x = 9 + x$

$$-5 = 12x$$

$$x = -\frac{5}{12}$$

15. $11x - 8 = x + 10$

$$10x = 18$$

$$x = \frac{18}{10} = \frac{9}{5}$$

16. $6x - 4 = 7x - 2$

$$-2 = x$$

$$x = -2$$

17. $5(7 - x) = 7$

$$35 - 5x = 7$$

$$28 = 5x$$

$$x = \frac{28}{5}$$

18. $6 - 2x = 10 + 4x$

$$-4 = 6x$$

$$x = -\frac{4}{6} = -\frac{2}{3}$$

19. $9x + 10 = 11 - 4x$

$$13x = 1$$

$$x = \frac{1}{13}$$

20. $3k + 7 = 9k - 4$

$$11 = 6k$$

$$k = \frac{11}{6}$$

21. $1.5x + 3 = 4x + 7$

$$-4 = 2.5x$$

$$-8 = 5x$$

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

22. $4y + 3 = 4(2 - y)$

$$4y + 3 = 8 - 4y$$

$$8y = 5$$

$$y = \frac{5}{8}$$

23. $0.25x + 3 = 0.5x - 8$

$$11 = 0.25x$$

$$x = 44$$

24. $8x + 10 = 10x + 1$

$$9 = 2x$$

$$x = \frac{9}{2} \text{ (or 4.5)}$$