Review for Test

33. Solve the equation.

$$\frac{1}{8}(8x-9) = -\frac{7}{3} - \frac{7}{3}$$

$$x - \frac{9}{8} = -\frac{14}{3}$$

$$+\frac{9}{8} \qquad +\frac{9}{8}$$

$$x = -\frac{14\cdot 8}{3\cdot 8} + \frac{9\cdot 3}{8\cdot 3}$$

$$x = -\frac{112}{24} + \frac{27}{24}$$

$$x = -\frac{85}{24}$$

14. Simplify the expression.

$$3b^2c^4 + 5b^4c^2 - 3b^4c^2$$

$3b^2c^4 + 2b^4c^2$

44. Solve the equation for x.

$$\frac{6(x+6)}{3} = 4x - 4$$

$2(x+6) = 4x-4$

$2x + 12 = 4x - 4$

$-4x \qquad -4x$

$-2x + 12 = -4$

$-12 \qquad -12$

$$\frac{-2x}{-2} = \frac{-16}{-2}$$

$$x = 8$$

49. Solve the equation for x.

$$x + \frac{9}{6} = \frac{1}{2}x$$

$$-\frac{1}{2}x \qquad -\frac{1}{2}x$$

$$\frac{1}{2}x + \frac{9}{6} = 0$$

$$-\frac{9}{6} \qquad -\frac{9}{6}$$

$$\frac{2}{1}\left(\frac{1}{2}x\right) = \left(-\frac{9}{6}\right)\frac{2}{1}$$

$$x = -3$$

2. Simplify the expression by combining any like terms.

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

$6x - 5$

18. Solve the equation for x.

$-4(x-2) = 6 - 3x$

$-4x + 8 = 6 - 3x$

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If the sum of a number and six is doubled, the result is nine less than the number. Find the number.

$2(n+6) = n - 9$

$2n + 12 = n - 9$

$-n \qquad -n$

$n + 12 = -9$

$-12 \qquad -12$

$n = -21$

43. Solve the equation.

$$\frac{2}{7}x + \frac{1}{7} = -\frac{5}{7}$$

$$\frac{7}{1}\left(\frac{2}{7}x + \frac{1}{7}\right) = \frac{7}{1}\left(-\frac{5}{7}\right)$$

$$2x + 1 = -5$$

$$-1 \qquad -1$$

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

$$x = -3$$

45. Solve the equation for x.

$$2x + 4 = 2(x + 8)$$

$2x + 4 = 2x + 16$

$-2x \qquad -2x$

$4 = 16$

No solution.

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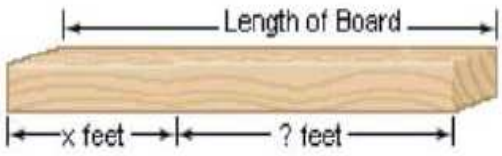
A 15-foot board is cut into two pieces. If one piece is x feet long, express the other length in terms of



$15 - x$