

$px + q = r$

Name: _____ Date: _____

Solve. Undo the addition or subtraction first, then the multiplication.

1. $3x - 8 = 1$

$x = \underline{\hspace{2cm}}$

2. $6t + 20 = 56$

$t = \underline{\hspace{2cm}}$

3. $4x - 13 = 19$

$x = \underline{\hspace{2cm}}$

4. $7k + 15 = 85$

$k = \underline{\hspace{2cm}}$

5. $2x - 13 = 1$

$x = \underline{\hspace{2cm}}$

6. $8m + 6 = 86$

$m = \underline{\hspace{2cm}}$

7. $5n + 6 = 16$

$n = \underline{\hspace{2cm}}$

8. $7n + 18 = 88$

$n = \underline{\hspace{2cm}}$

9. $8m - 12 = 68$

$m = \underline{\hspace{2cm}}$

10. $7y - 6 = 57$

$y = \underline{\hspace{2cm}}$

11. $9m + 17 = 125$

$m = \underline{\hspace{2cm}}$

12. $9y - 17 = 73$

$y = \underline{\hspace{2cm}}$

With negative numbers

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Solve. Some numbers and answers are negative.

1. $5y - 4 = 16$

$y =$ _____

2. $9k - 6 = 21$

$k =$ _____

3. $-3t + 1 = -14$

$t =$ _____

4. $-7y + 14 = 84$

$y =$ _____

5. $-6n + 3 = 57$

$n =$ _____

6. $-8t + 3 = 19$

$t =$ _____

7. $-6n - 11 = -47$

$n =$ _____

8. $-2y + 15 = 23$

$y =$ _____

9. $4x - 14 = -50$

$x =$ _____

10. $2y - 8 = -18$

$y =$ _____

11. $-9t - 12 = 60$

$t =$ _____

12. $-9x + 8 = 89$

$x =$ _____

$p(x + q) = r$

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Solve. Divide both sides first, or distribute and then solve.

1. $2(x - 1) = -14$

$x = \underline{\hspace{2cm}}$

2. $-4(n + 7) = 12$

$n = \underline{\hspace{2cm}}$

3. $9(m - 8) = -99$

$m = \underline{\hspace{2cm}}$

4. $-8(n - 9) = 64$

$n = \underline{\hspace{2cm}}$

5. $-6(k + 1) = -36$

$k = \underline{\hspace{2cm}}$

6. $5(x + 8) = 85$

$x = \underline{\hspace{2cm}}$

7. $-8(t - 1) = -8$

$t = \underline{\hspace{2cm}}$

8. $-5(k + 6) = -15$

$k = \underline{\hspace{2cm}}$

9. $-5(m + 7) = -75$

$m = \underline{\hspace{2cm}}$

10. $6(m + 7) = 42$

$m = \underline{\hspace{2cm}}$

11. $4(k - 9) = -8$

$k = \underline{\hspace{2cm}}$

12. $-8(n - 1) = 80$

$n = \underline{\hspace{2cm}}$

Division equations

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Solve. Undo the addition or subtraction, then multiply.

1. $n \div 3 - 9 = -12$

$n =$ _____

2. $m \div 3 + 10 = 18$

$m =$ _____

3. $x \div 3 + 10 = 9$

$x =$ _____

4. $m \div 2 + 6 = 0$

$m =$ _____

5. $n \div 6 - 4 = -1$

$n =$ _____

6. $t \div 5 + 12 = 20$

$t =$ _____

7. $x \div 3 + 1 = -6$

$x =$ _____

8. $n \div 2 + 11 = 19$

$n =$ _____

9. $x \div 3 - 9 = -14$

$x =$ _____

10. $x \div 3 - 9 = -10$

$x =$ _____

11. $n \div 2 + 9 = 17$

$n =$ _____

12. $m \div 5 + 5 = 6$

$m =$ _____