Linear and Nonlinear Expressions Worksheets

Write each of the following statements as a mathematical expression. State whether or not the expression is linear or nonlinear.

1. The sum of a number and four times the number

2. The product of five and a number.

3. Multiply six and the reciprocal of the quotient of a number and seven.

4. Twice a number subtracted from four times a number, added to 15

5. The square of the sum of six and a number.

6. The cube of a positive number divided by the square of the same positive number

Linear and Nonlinear Expressions Worksheets

Write each of the following statements as a mathematical expression. State whether or not the expression is linear or nonlinear.

1. The sum of a number and four times the number

   Let x be a number; then, $x + 4x$ is a linear expression.

2. The product of five and a number.

   Let x be a number; then, $5x$ is a linear expression.

3. Multiply six and the reciprocal of the quotient of a number and seven.

   Let x be a number; then, $6 \cdot \dfrac{7}{x}$ is a nonlinear expression.

4. Twice a number subtracted from four times a number, added to 15

   Let x be a number; then, $15 + (4x - 2x)$ is a linear expression.

5. The square of the sum of six and a number.

   Let x be a number; then, $(x + 6)^2$ is a nonlinear expression.

6. The cube of a positive number divided by the square of the same positive number

   Let x be a number; then, $\dfrac{x^3}{x^2}$ is a nonlinear expression. However, if you simplify the expression to x, then it is linear.

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