

**Directions:** Simplify each expression. Find the answer in the answer column and write the letter across from it in the corresponding blank in the statement below.

A teacher was trying to impress her pupils with the fact that terms cannot be subtracted from one another unless they are like terms. "For example, we can't take five apples from six bananas."

"  $\frac{1}{1} - \frac{1}{16} - \frac{1}{3} - \frac{1}{3}$ ,  $\frac{1}{4} - \frac{1}{7} - \frac{1}{8} - \frac{1}{10} - \frac{1}{14} - \frac{1}{16} - \frac{1}{19} - \frac{1}{16} - \frac{1}{6}$ ,  $\frac{1}{11} - \frac{1}{18} - \frac{1}{8} - \frac{1}{18} - \frac{1}{13} - \frac{1}{3}$ ,  $\frac{1}{4} - \frac{1}{11} - \frac{1}{10} - \frac{1}{14}$ ,  $\frac{1}{1} - \frac{1}{16} - \frac{1}{14} - \frac{1}{11} - \frac{1}{2} - \frac{1}{16}$   
 $\frac{1}{9} - \frac{1}{13} - \frac{1}{17} - \frac{1}{16}$ ,  $\frac{1}{11} - \frac{1}{18} - \frac{1}{18} - \frac{1}{3} - \frac{1}{16} - \frac{1}{5}$ ,  $\frac{1}{9} - \frac{1}{19} - \frac{1}{7} - \frac{1}{12}$ ,  $\frac{1}{14} - \frac{1}{15} - \frac{1}{19} - \frac{1}{16} - \frac{1}{16}$ ,  $\frac{1}{14} - \frac{1}{19} - \frac{1}{16} - \frac{1}{16} - \frac{1}{5}$  ?"

1.  $x + x + 2x =$

2.  $-5x - 6x =$

3.  $4x + 8y + 3x =$

4.  $5y + 8y + 4x =$

5.  $3 + 9x + 10 =$

6.  $7x + 5y + 2y =$

7.  $5x^2 + 2x^2 + 7x =$

8.  $-4x^2 - 5x + 2x =$

9.  $18x + -6x =$

10.  $(5x + 2y) + (2x + y) =$

11.  $7x^2y + 5xy^2 - 4x^2 + 7xy^2 =$

12.  $6xy + 3x + 3xy =$

13.  $3x + 6y + y + 7x =$

14.  $7x^2y + 8 + -5x^2y - 4 =$

15.  $(5xy + -7xy) + (3yx + -2xy) =$

16.  $6x^2y + 2xy^2 - 4x^2y - 3xy^2 + x^2y =$

17.  $xy + x + xy =$

18.  $9x - 5y + x - 3y =$

19.  $4xy - 3x + 7yx + -11xy =$

Answers	Letter
$7x^2y + 12xy^2 - 4x^2$	A
$13y + 4x$	C
$7x + 7y$	D
$3x^2y - xy^2$	E
$12x$	F
$-xy$	H
$10x + 7y$	I
$-11x$	K
$7x + 8y$	L
$9xy + 3x$	M
$7x + 3$	N
$7x^2 + 7x$	O
$10x - 8y$	P
$-3x$	R
$9x + 13$	S
$2x^2y + 4$	T
$-4x^2 - 3x$	U
$2xy + x$	V
$4x$	W

