

## Lesson 5.2 Parts of an Expression

Identify each of the following as an *expression* or an *equation*.

- | <b>a</b>                             | <b>b</b>                          | <b>c</b>                           |
|--------------------------------------|-----------------------------------|------------------------------------|
| 1. $8 + x$ <u>Expression</u>         | $9 + 7 = 16$ <u>Equation</u>      | $20 \times m = 60$ <u>Equation</u> |
| 2. $b \div 5$ <u>Expression</u>      | $32 = 8 \times 4$ <u>Equation</u> | $43 \times 7$ <u>Expression</u>    |
| 3. $4h$ <u>Expression</u>            | $91 - 20 = 71$ <u>Equation</u>    | $17 + c$ <u>Expression</u>         |
| 4. $36 = 9 \times 4$ <u>Equation</u> | $65 - x$ <u>Expression</u>        | $30f$ <u>Expression</u>            |

For each term below, identify the coefficient and the variable.

- | <b>a</b>   | <b>b</b>                                    |
|--|---|
| 5. $6g$ coefficient <u>6</u> variable <u>g</u>   | $p$ coefficient <u>1</u> variable <u>p</u>  |
| 6. $5r$ coefficient <u>5</u> variable <u>r</u>   | $9t$ coefficient <u>9</u> variable <u>t</u> |
| 7. $2x$ coefficient <u>2</u> variable <u>x</u>   | $4n$ coefficient <u>4</u> variable <u>n</u> |
| 8. $3a$ coefficient <u>3</u> variable <u>a</u>   | $7d$ coefficient <u>7</u> variable <u>d</u> |
| 9. $20s$ coefficient <u>20</u> variable <u>s</u> | $y$ coefficient <u>1</u> variable <u>y</u>  |

Translate each phrase into an expression or an equation.

- |   |   |
|---|---|
| 10. the sum of 3 and $b$ <u><math>3 + b</math></u>            | 8 times the sum of $f$ and 7 <u><math>8(f + 7)</math></u> |
| 11. product of 8 and $d$ <u><math>8d</math></u>               | $p$ added to 4 equals 9 <u><math>p + 4 = 9</math></u>     |
| 12. subtract 3 from 4 times $m$ <u><math>4m - 3</math></u>    | $r$ minus 2 is 8 <u><math>r - 2 = 8</math></u>            |
| 13. 4 times the sum of 5 and $x$ <u><math>4(5 + x)</math></u> | product of 10 and 2 <u><math>10 \times 2</math></u>       |
| 14. 12 times $r$ minus 7 <u><math>12r - 7</math></u>          | the sum of 9 and $k$ <u><math>9 + k</math></u>            |

## Lesson 5.3 Writing Expressions

Translate each phrase into an algebraic expression or an equation.

- | a  | b  |
|--|--|
| 1. subtract 8 from 3 times $d$ <u><math>3d - 8</math></u>                    | take away 3 from $x$ <u><math>x - 3</math></u>                           |
| 2. $g$ minus 2 is 14 <u><math>g - 2 = 14</math></u>                          | $z$ is added to 8 <u><math>8 + z</math></u>                              |
| 3. the sum of 7 and $z$ <u><math>7 + z</math></u>                            | 2 is subtracted from 4 times $d$ <u><math>4d - 2</math></u>              |
| 4. two-fifths of the sum of 6 and $s$ <u><math>\frac{2}{5}(6 + s)</math></u> | 9 minus $c$ <u><math>9 - c</math></u>                                    |
| 5. 10 minus $x$ <u><math>10 - x</math></u>                                   | subtract 9 from the product of 4 and $f$ <u><math>4f - 9</math></u>      |
| 6. 3 is subtracted from 5 times $a$ <u><math>5a - 3</math></u>               | $y$ minus 3 is 15 <u><math>y - 3 = 15</math></u>                         |
| 7. $s$ is added to 9 <u><math>9 + s</math></u>                               | the sum of 8 and $t$ <u><math>8 + t</math></u>                           |
| 8. take away 9 from $h$ <u><math>h - 9</math></u>                            | one-third of the sum of 7 and $k$ <u><math>\frac{1}{3}(7 + k)</math></u> |

Write each expression in words. ANSWERS MAY VARY

9.  $9 \div x$  The quotient of 9 and  $x$
10.  $3 \times g = 27$  The product of 3 and  $g$  is 27
11.  $6 \times m - 4$  The product of 6 and  $m$  subtracted by 4
12.  $\frac{1}{2} \times b + 9 = 11$   $\frac{1}{2}$  of  $b$  plus 9 = 11
13.  $14 \div p$  The quotient of 14 and  $p$
14.  $6 \times b = 42$  The product of 6 and  $b$  is 42
15.  $9 \times d - 10$  10 subtracted from the product of 9 and  $d$
16.  $\frac{1}{4} \times t + 8 = 16$   $\frac{1}{4}$  times  $t$  added by 8 is 16