

Warm up:

Write each phrase as an algebraic expression.

1) 4 more than a number

$$4 + x$$

2) 5 times a number

$$x \cdot 5 \quad 5x$$

Words and Phrases to Look For

Addition and Subtraction

- sum
- more than
- increased by
- in all
- difference
- less than
- less
- decreased by

Multiplication and Division

- each
- product
- multiplied
- twice
- per
- divide
- quotient
- separate

is means equals (=)

Write the phrase as an algebraic expression.

3 more than the pirates scored

$$3 + p$$

$$p + 3$$

six less than a number is 20

$$\begin{array}{r} X - 6 = 20 \\ + 6 \quad + 6 \\ \hline X = 26 \end{array}$$

$$\textcircled{26}$$

Three times Jack's age is 12.

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

Jack is 4 years old

The tallest waterfall in the United States is Yosemite Falls in California with a height of about 739m. This height is 617m taller than Raven Cliff Falls. What is the height of Raven Cliff Falls?

$$\begin{array}{r} 739 = r + 617 \\ -617 \qquad \qquad -617 \\ \hline 122 = r \end{array}$$

$$122\text{m}$$

Practice

⑧ $x - 15 = 46$

~~a) $46 - 15$~~

b) $x - 15 = 46$

~~c) $46 - 15$~~

~~d) $15 + 46$~~

$$\textcircled{9} \quad 15 + t$$

$$\textcircled{10} \quad 5 + p$$

$$\textcircled{11} \quad x - 10$$

$$\textcircled{12} \quad x - 3$$

$$\textcircled{13} \quad 8r$$

$$\textcircled{14} \quad 2q$$

$$\textcircled{15} \quad \frac{3}{9}$$

$$\textcircled{16} \quad n \div (-12)$$

$$\textcircled{17} \quad n + 4 = -8$$

$$\textcircled{18} \quad f + 2 = 4$$

$$\textcircled{19} \quad 5x = -20$$

$$\textcircled{20} \quad 10s = 280$$

$$\textcircled{21} \quad h - 10 = 26$$

$$\textcircled{22} \quad x - 5 = 31$$

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