

1. What is an algebraic expression for each word phrase?

a. the sum of 5 and a number x

$x + 5$ or $5 + x$

c. 4 more than twice a number y

$2y + 4$ or $4 + 2y$

2. What is the algebraic expression for each word phrase?

a. three less than 8 times a number p

$8p - 3$

c. 12 divided by q to the fifth power

$\frac{12}{q^5}$

3. What word phrase can you use to represent the algebraic expression $3a - 4$?

4 less than 3 times a number a .

b. 3 less than a number n

$n - 3$

d. 2 minus the quotient of 6 and r

$2 - \frac{6}{r}$

b. 7 decreased by 9 times e

$7 - 9e$

4. **Do you understand?** The table shows how the cost of hiring a tutor depends on how many hours the work takes.

a. What is a rule for the total cost, in words?

To get the cost, multiply the number of hours by 15 and add 10.

b. What is a rule for the total cost, as an algebraic expression?

$Cost = 15h + 10$

| Hours | Cost |
|-------|------|
| 1 | \$25 |
| 2 | \$40 |
| 3 | \$55 |
| 4 | \$70 |
| 5 | \$85 |

Handwritten annotations: A bracket on the left side of the table spans rows 2 through 5. Brackets on the right side of the table indicate the difference between consecutive rows: \$15 between \$25 and \$40, \$15 between \$40 and \$55, \$15 between \$55 and \$70, and \$15 between \$70 and \$85.