

Variables 1.2



Overview of problems

Example Set: A

State the meaning of the variable expressions:

1. $4x + 2$

2. $6a - 3b$

3. $\frac{y}{2} + 5$

4. $d = rt$

5. $(x + y) + z$

6. $\frac{7xyz}{(m-n)}$

Example Set: B

Write as a variable expression:

1. 9 times y plus 5

2. $(x$ plus $m)$ divided by $(2$ times $r)$

3. a times b times c minus two

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4. c to the z power
5. the difference of n and p

Example Set: C

Evaluate the expressions:

1. $3x - 2$ when $x = 9$
2. $8a + 5c$ when $a = 2, c = 10$
3. $5y + 2(y - 1)$ when $y = 6$
4. $(xyz)^n$ when $x = 1, y = 2, z = 3, n = 4$

Example Set: D

Evaluate the expressions:

1. $xy + (z - 1)$ when $x = 2, y = 4, z = 8$
2. $[5x(4 + x)] \div y$ when $x = 3, y = 2$

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3. $\frac{3.8a+7.2x}{(x-a)}$ when $a = 1.9, x = 2.5$

4. $a^2 + b^2 = c^2$ when $a = 3, b = 4, c = 5$



Example Set: A -**ANSWER KEY**

State the meaning of the variable expression:

1. $4x + 2 = 4$ times x plus 2

2. $6a - 3b = 6$ times a minus 3 times b

3. $\frac{y}{2} + 5 = y$ divided by 2 plus 5

4. $d = rt = d$ equals r times t

5. $(x + y) + z =$ the sum of x and y plus z

6. $\frac{7xyz}{(m-n)} =$ the product of 7, x , y and z divided by the difference of m and n

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Example Set: B- ANSWER KEY

Write as a variable expression:

1. 9 times y plus 5 = $9y + 5$
2. (x plus m) divided by (2 times r) = $\frac{x+m}{2r}$
3. a times b times c minus two = $abc - 2$
4. c to the z power = c^z
5. the difference of n and p = $(n - p)$



Example Set: C-ANSWER KEY

Evaluate the expressions:

1. $3x - 2$ when $x = 9$ = 25
2. $8a + 5c$ when $a = 2, c = 10$ = 66
3. $5y + 2(y - 1)$ when $y = 6$ = 40
4. $(xyz)^n$ when $x = 1, y = 2, z = 3, n = 4$ = 1296

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Example Set: D-ANSWER KEY

Evaluate the expressions:

1. $xy + (z - 1)$ when $x = 2, y = 4, z = 8$ = 15

2. $[5x(4 + x)] \div y$ when $x = 3, y = 2$ = 52.5

3. $\frac{3.8a+7.2x}{(x-a)}$ when $a = 1.9, x = 2.5$ = 42.03

4. $a^2 + b^2 = c^2$ when $a = 3, b = 4, c = 5$ = 25 = 25