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

Overview of problems

4. c to the z powe

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 $x = 3, y = 2$

Variables 1.2

Overview of problems

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

Variables 1.2

Overview of problems

*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 $x = 1, y = 2, z = 3, n = 4$ $= 1296$

Variables 1.2

Overview of problems

*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 $a = 3, b = 4, c = 5$ $= 25 = 25$