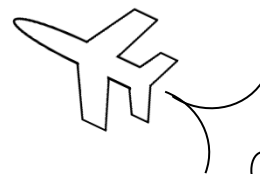


MAth on the Fly!



NAME: _____ DATE: _____

Evaluating Multivariate Functions

Evaluate and find each function value.

1. $f(x,y) = -2xy^2$

- a. Find $f(2,-3)$
- b. Find $f(12,1/4)$

2. $f(x,y) = 72x^2y^3$

- a. Find $f(2/3,1/2)$
- b. Find $f(-1,-2)$

3. $f(x,y) = \frac{x^3 - y}{|x - y|}$

- a. Find $f(-5,1)$
- b. Find $f(2,-1)$

4. $f(x,y) = 50x^2 + 8y$

- a. Find $f(3/5,7/8)$
- b. Find $f(0.2,0.25)$

5. $f(x,y,z) = x^2yz^3$

- a. Find $f(3/4,2,4)$
- b. Find $f(-3,-2,-1)$

6. $f(x,y,z) = 48xyz$

- a. Find $f(-1,-5/6,-1/2)$
- b. Find $f(1/16,-3,2)$

7. $f(x,y,z) = 2^x3^y4^z$

- a. Find $f(-2,0,3)$
- b. Find $f(4,2,-1)$

8. $f(x,y,z) = x^3y^4z^2$

- a. Find $f(-1,2,10)$
- b. Find $f(5,1/5,10)$

SOLUTIONS

1.

a. $f(2, -3) = -36$

b. $f(12, 1/4) = -3/2$ or -1.5

2.

a. $f(2/3, 1/2) = 4$

b. $f(-1, -2) = -576$

3.

a. $f(-5, 1) = -21$

b. $f(2, -1) = 3$

4.

a. $f(3/5, 7/8) = 25$

b. $f(0.2, 0.25) = 4$

5.

a. $f(3/4, 2, 4) = 72$

b. $f(-3, -2, -1) = 18$

6.

a. $f(-1, -5/6, -1/2) = -20$

b. $f(1/16, -3, 2) = -18$

7.

a. $f(-2, 0, 3) = 16$

b. $f(4, 2, -1) = 36$

8.

a. $f(-1, 2, 10) = -1600$

b. $f(5, 1/5, 10) = 20$