

1. What is the definition of a partial derivative?

A. A derivative of a function of two or more variables with respect to one of its variables, holding the other variables constant.

B. A derivative of a function of two or more variables with respect to all of its variables.

C. A derivative of a function of one variable with respect to another variable.

D. A derivative of a function of one variable with respect to all of its variables.

2. Which of the following is an example of a partial derivative?

A. $f(x,y) = x^2 + y^2$

B. $f(x,y) = x^3 + y^3$

C. $f(x,y) = x^4 + y^4$

D. $f(x,y) = x^5 + y^5$

3. What is the partial derivative of $f(x,y) = x^2 + y^2$ with respect to x ?

A. $2x$

B. $3x$

C. $4x$

D. $5x$

4. What is the partial derivative of $f(x,y) = x^3 + y^3$ with respect to y ?

A. $3y$

B. $4y$

C. $5y$

D. $6y$

5. What is the partial derivative of $f(x,y) = x^4 + y^4$ with respect to x ?

A. $4x$

B. $5x$

C. $6x$

D. $7x$

6. What is the partial derivative of $f(x,y) = x^5 + y^5$ with respect to y ?

A. $5y$

B. $6y$

C. $7y$

D. $8y$

7. What is the partial derivative of $f(x,y) = x^2 + y^2$ with respect to y ?

A. $2y$

B. $3y$

C. $4y$

D. $5y$

8. What is the partial derivative of $f(x,y) = x^3 + y^3$ with respect to x ?

A. $3x$

B. $4x$

C. $5x$

D. $6x$

9. What is the partial derivative of $f(x,y) = x^4 + y^4$ with respect to y ?

A. $4y$

B. $5y$

C. $6y$

D. $7y$

10. What is the partial derivative of $f(x,y) = x^5 + y^5$ with respect to x ?

A. $5x$

B. $6x$

C. $7x$

D. $8x$

Answer Key:

1. A

2. A

3. A

4. A

5. A

6. A

7. A

8. A

9. A

10. A