

Practice 01

Use point-by-point plotting to sketch the graph of the equation.

1) $f(x) = \frac{2x}{x+2}$

Find the function value.

2) Find $f(-6)$ when $f(x) = 9 - 3x^2$.

- A) 117 B) 27 C) 45 D) -99

2) _____

3) Given that $f(x) = 5x^2 - 2x$, find $f(t + 2)$.

- A) $5t^2 + 18t + 16$ B) $5t^2 - 18t + 16$ C) $3t + 6$ D) $t^2 + 2t - 6$

3) _____

Compute and simplify the difference quotient $\frac{f(x+h) - f(x)}{h}$, $h \neq 0$.

4) $f(x) = 5x^2 + 7x$

- A) $10x + 5h + 7$ B) $10x^2 + 5h + 7x$ C) $15x - 7h + 14$ D) $10x + 7$

4) _____

Determine the domain of the function.

5) $f(x) = -7x + 9$

- A) $x \leq \frac{9}{7}$ B) No solution
C) All real numbers D) All real numbers except $\frac{9}{7}$

5) _____

6) $f(x) = \frac{x}{x-2}$

- A) $x < 2$ B) All real numbers except 2
C) No solution D) All real numbers

6) _____

7) $f(x) = \sqrt{3-x}$

- A) $x \leq 3$ B) All real numbers except 3
C) $x < 3$ D) No solution

7) _____

Solve the problem.

8) The point at which a company's costs equals its revenue is the break-even. C represents cost, in dollars, of x units of a product. R represents the revenue, in dollars, for the sale of x units. Find the number of units that must be produced and sold in order to break even.

$C = 15x + 12,000$

$R = 18x - 6000$

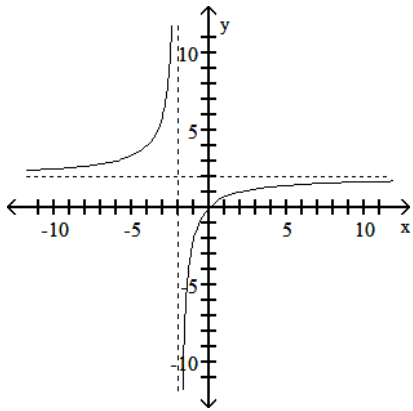
- A) 800 B) 545 C) 12,000 D) 6000

8) _____

Answer Key

Testname: PRACTICE01

1)



- 2) D
- 3) A
- 4) A
- 5) C
- 6) B
- 7) A
- 8) D