

WORKSHEET

Domain and Range

Unsolved with Answer key



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Simplifying Fractions

Problem: Simplify the following fractions. Write your answers in the simplest form.

Q 1: Determine the domain and range of $f(x) = \frac{3x+2}{x-5}$.

Q 2: Find the domain and range of $f(x) = \sqrt{2x+7}$.

Q 3: Identify the domain and range of $f(x) = \frac{1}{x^2-4}$.

Q 4: Determine the domain and range of $f(x) = x^2 - 4x + 7$.

Q 5: Find the domain and range of $f(x) = \sqrt{9-x^2}$.

Q 6: Identify the domain and range of $f(x) = \ln(3x-1)$.

Q 7: Determine the domain and range of $f(x) = e^x$.

Q 8: Find the domain and range of $f(x) = \frac{2}{x^2+4}$.

Q 9: Identify the domain and range of $f(x) = |x-3|$.

Q 10: Determine the domain and range of $f(x) = \frac{1}{\sqrt{x+4}}$.

Answer Key

Domain and Range

1: $x = 5$, $y = 3$

2: x greater than $=$ to $-7/2$, $y =$ greater than $=$ to 0

3: $x = 2$ and -2 , y is not $=$ to 0

4: $x =$ All Real numbers , y greater than $=$ to 3

5: $x = -3 \leq x \leq 3$, $y = 0 \leq y \leq 3$

6: $x =$ greater than $1/3$, $y =$ All Real numbers

7: $x =$ All Real numbers , $y =$ greater than 0

8: $x =$ All Real numbers , $y = 0 < y \leq 21$

9: $x =$ All real numbers , $y \geq 0$

10: $x > -4$, $y > 0$