

## Classwork Domain of Functions

Please work all problems on a separate sheet of paper.

Find the domain of the following functions. Write answers in interval notation.

$$1. \ f(x) = \frac{2x}{x^2 + 5x + 6}$$

$$2. \ f(x) = \frac{3x + 7}{x^2 - 6x - 27}$$

$$3. \ f(x) = \frac{4x}{x^2 - 25}$$

$$4. \ f(x) = 3x - 5$$

$$5. \ f(x) = \sqrt{12x - 24}$$

$$6. \ f(x) = \sqrt[5]{x - 2}$$

$$7. \ f(x) = \frac{12x}{\sqrt{x - 5}}$$

$$8. \ f(x) = \frac{5x + 7}{\sqrt{x^2 - 9}}$$

$$9. \ f(x) = \sqrt{x^2 - 4}$$

$$10. \ f(x) = \sqrt{x^2 + 5x + 6}$$

$$11. \ f(x) = \sqrt{x^2 - 2x - 8}$$

$$12. \ f(x) = \sqrt{100 - x^2}$$

$$13. \ f(x) = \sqrt{6x^2 - x - 12}$$

$$14. \ f(x) = \frac{\sqrt{x - 5}}{x^2 - 121}$$