Student Name:

Functions Assignment

Directions: Answer each question below, showing all pertinent work.

1. Write each equation in function notation, then solve the function for the given value.

| Equation | Function | ation, then solve the function for the given value. Solution |
|---|----------|---|
| Given Value | | |
| y = 15x - 40 when x = 3 | | |
| | | |
| $y = \frac{2}{3}x + 20$ when x = 21 | | |
| $y = (3x)^2 + 17$ | | |
| when x = -2 | | |
| y = 2.5x + 5.8 when x = 0.6 | | |
| $y = \frac{3}{4}x - \frac{5}{8}$ when $x = \frac{1}{4}$ | | |

Student Name:

Functions Assignment

- 2. Determine whether each relation is a function. If so, provide the domain and range.
- a. Width versus area.

| Width (m) | Area (m²) |
|-----------|-----------|
| 1 | 6 |
| 5 | 50 |
| 10 | 150 |
| 11 | 176 |
| 14 | 266 |

Function?

If so,

Domain =

Range =

b. Hours worked versus salary.

| Hours Worked | Salary |
|---------------------|--------|
| 0 | 0 |
| 10 | \$300 |
| 20 | \$600 |
| 30 | \$900 |
| 40 | \$1200 |

Function?

If so,

Domain =

Range =

c. Height versus age.

| Height (cm) | Age (years) |
|-------------|-------------|
| 160 | 20 |
| 160 | 25 |
| 160 | 30 |
| 160 | 35 |
| 160 | 40 |
| 160 | 45 |
| 160 | 50 |

Function?

If so,

Domain =

Range =