

Relations & Functions

Given the relation: $\{(-7, 2), (-5, 3), (0, 1), (4, 6)\}$

- ① State the Domain
- ② State the Range
- ③ express the relation as a Domain/Range table

For each relation below:

- a) Construct a Domain / Range table
- b) use the table to determine if the relation is a function

④ $\{(1, 2), (3, 0), (-1, 2), (4, 10)\}$

⑤ $\{(-2, 1), (0, 3), (4, 2), (0, 5)\}$

Evaluating Functions. Let $f(x) = 3x - 2$.

⑥ $f(0) = ?$ ⑦ $f(3) = ?$ ⑧ $f(-1) = ?$

⑨ $f(\frac{1}{3}) = ?$ ⑩ $f(10) = ?$

Answers:

① $\{-7, -5, 0, 4\}$	② $\{2, 3, 1, 6\}$	③	<table><thead><tr><th>D</th><th>R</th></tr></thead><tbody><tr><td>-7</td><td>→ 2</td></tr><tr><td>-5</td><td>→ 3</td></tr><tr><td>0</td><td>→ 1</td></tr><tr><td>4</td><td>→ 6</td></tr></tbody></table>	D	R	-7	→ 2	-5	→ 3	0	→ 1	4	→ 6
D	R												
-7	→ 2												
-5	→ 3												
0	→ 1												
4	→ 6												

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Answers:

④ D R

$$1 \rightarrow 2$$

$$3 \rightarrow 0$$

$$-1 \rightarrow 2$$

$$4 \rightarrow 10$$

function

⑤ D R

$$-2 \rightarrow 1$$

$$0 \rightarrow 3$$

$$4 \rightarrow 2$$

$$5$$

not a function

⑥ $f(0) = -2$

⑦ $f(3) = 7$

⑧ $f(-1) = -5$

⑨ $f\left(\frac{1}{3}\right) = -1$

⑩ $f(10) = 28$