

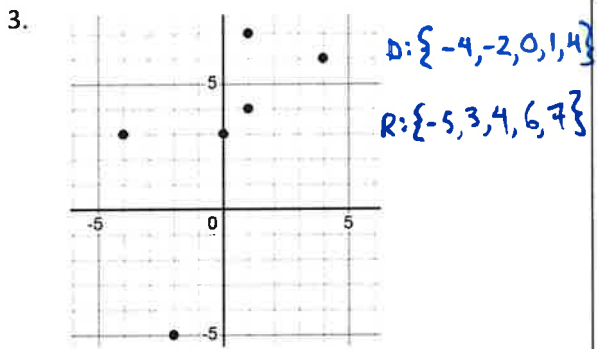
Section 2.1b – Practice Questions

EMERGING LEVEL QUESTIONS

1. The domain of a relation is:
 - a) The set of all x and y values in ordered pairs
 - b) The sum of the components in the ordered pairs
 - c) The set of all the first components in the ordered pairs**
 - d) The set of all the second components on the ordered pairs

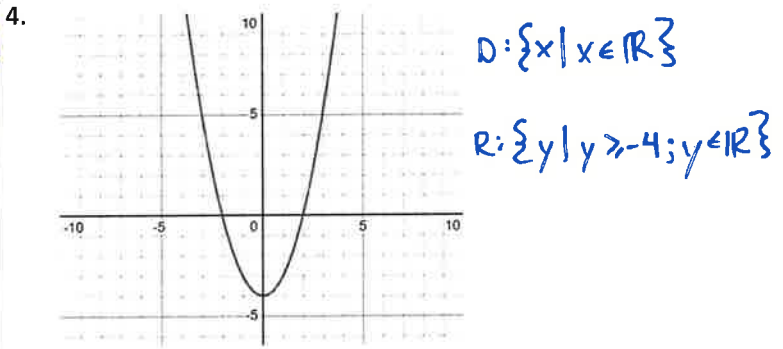
2. The range of a relation is:
 - a) The set of all x and y values in ordered pairs
 - b) The sum of the components in the ordered pairs
 - c) The set of all the first components in the ordered pairs
 - d) The set of all the second components on the ordered pairs**

State the Domain and Range of the following Graphs



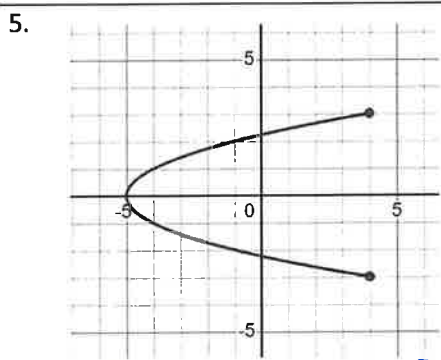
D:

R:

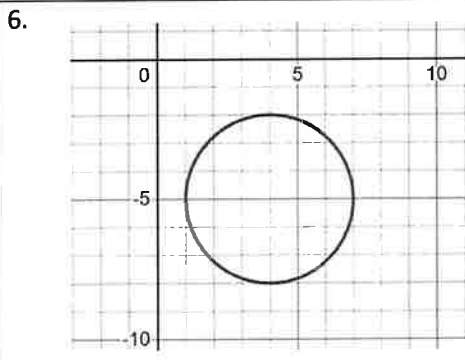


D:

R:



D: $\{x | -5 \leq x \leq 4; x \in \mathbb{R}\}$
 R: $\{y | -3 \leq y \leq 3; y \in \mathbb{R}\}$

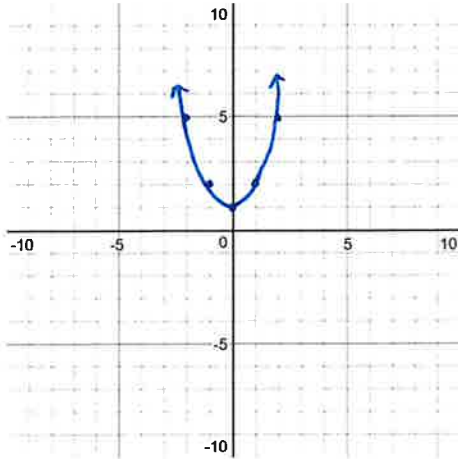


D: $\{x | 1 \leq x \leq 7; x \in \mathbb{R}\}$
 R: $\{y | -8 \leq y \leq -2; y \in \mathbb{R}\}$

PROFICIENT LEVEL QUESTIONS

Graph the Non-Linear Equations, use the table if needed. Include Domain and Range in Set Notation.

7. $y = x^2 + 1$

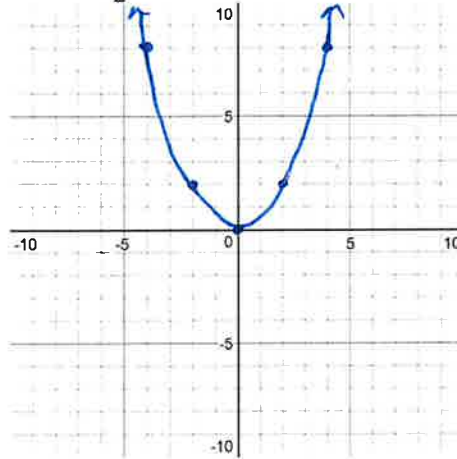


x	0	1	-1	2	-2
y	1	2	2	5	5

D: $\{x \mid x \in \mathbb{R}\}$

R: $\{y \mid y \geq 1; y \in \mathbb{R}\}$

8. $y = \frac{1}{2}x^2$

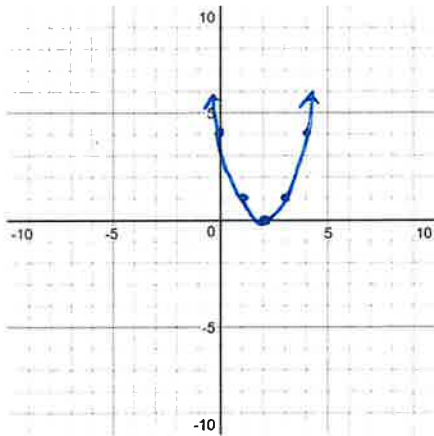


x	0	2	-2	4	-4
y	0	2	2	8	8

D: $\{x \mid x \in \mathbb{R}\}$

R: $\{y \mid y \geq 0; y \in \mathbb{R}\}$

9. $y = (x - 2)^2$

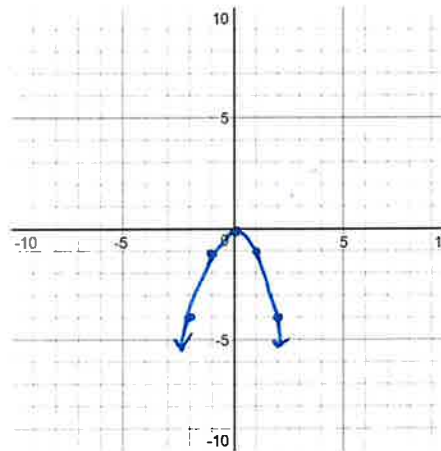


x	2	1	3	4	0
y	0	1	1	4	4

D: $\{x \mid x \in \mathbb{R}\}$

R: $\{y \mid y \geq 0; y \in \mathbb{R}\}$

10. $y = -x^2$

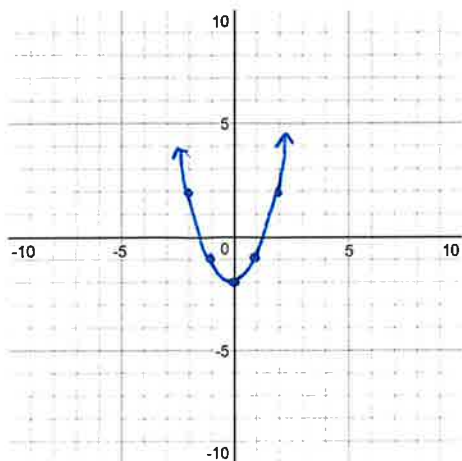


x	0	1	-1	2	-2
y	0	-1	-1	-4	-4

D: $\{x \mid x \in \mathbb{R}\}$

R: $\{y \mid y \leq 0; y \in \mathbb{R}\}$

11. $y = x^2 - 2$

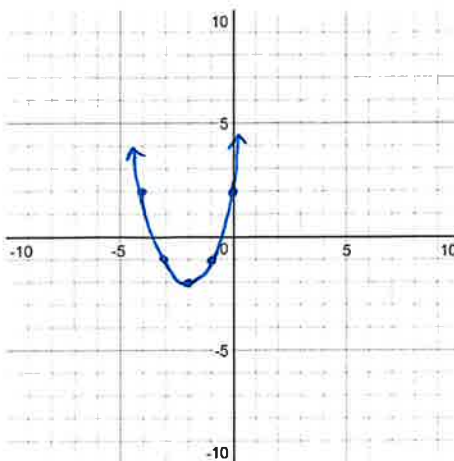


x	0	1	-1	2	-2
y	-2	-1	-1	2	2

D: $\{x | x \in \mathbb{R}\}$

R: $\{y | y \geq -2; y \in \mathbb{R}\}$

12. $y = (x + 2)^2 - 2$



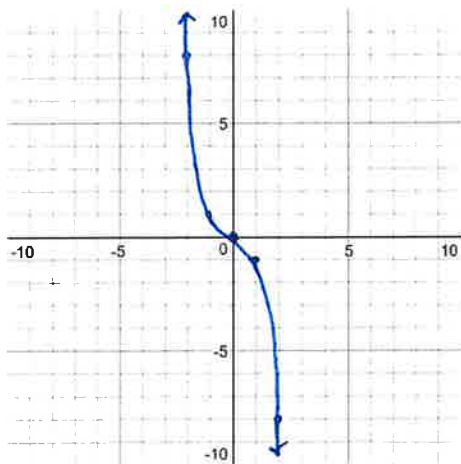
x	-2	-1	-3	-4	4
y	-2	-1	-1	2	2

D: $\{x | x \in \mathbb{R}\}$

R: $\{y | y \geq -2; y \in \mathbb{R}\}$

EXTENDING LEVEL QUESTIONS

13. $y = -x^3$

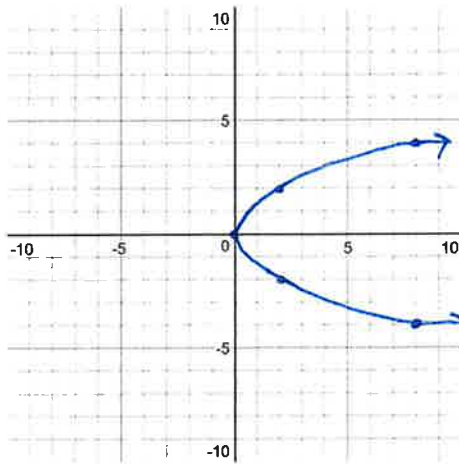


x	0	1	-1	2	-2
y	0	-1	1	-8	8

D: $\{x | x \in \mathbb{R}\}$

R: $\{y | y \in \mathbb{R}\}$

14. $x = \frac{1}{2}y^2$



x	0	2	2	8	8
y	0	2	-2	4	-4

D: $\{x | x \geq 0; x \in \mathbb{R}\}$

R: $\{y | y \in \mathbb{R}\}$