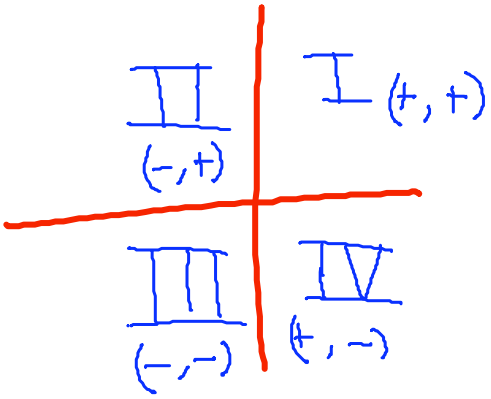
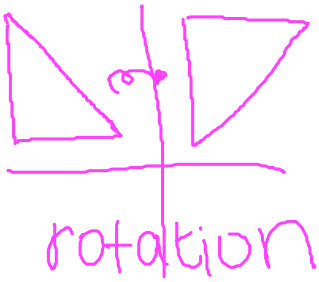
Chapter 4 Review

4.1 ordered pairs

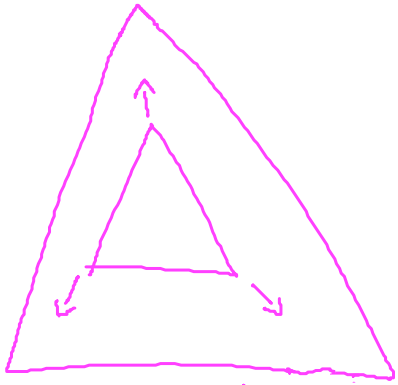


4.2 Transformations

translation



rotation

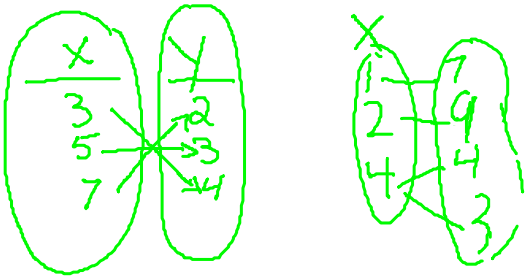


Dialation

reflection

4.3 Relations

yes mapping no



table

yes

X	Y
3	0
4	1
5	6
9	3

no

X	Y
3	-4
2	6
8	10
12	-7

ordered pairs

yes

{(3, -4), (2, 6), (8, 10), (12, -7)}

no

{(3, 0), (4, 1), (5, 6), (3, 3)}

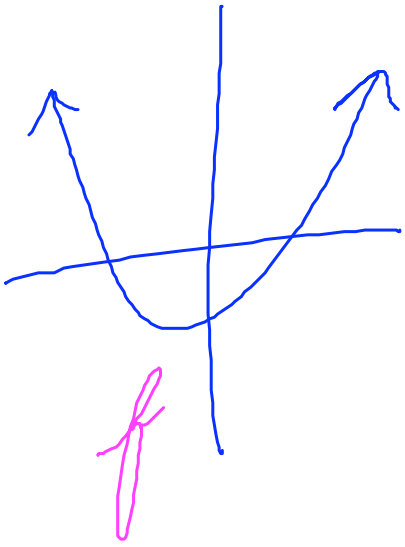
low to hi

D: {2, 3, 8, 12}

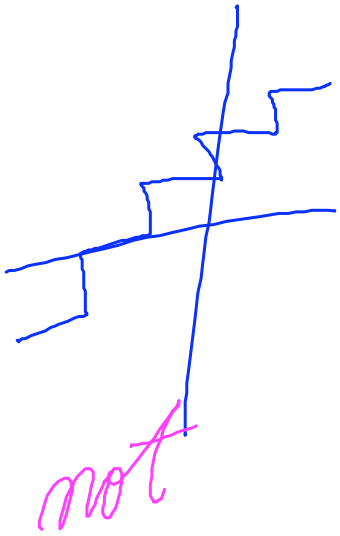
R: {-7, -4, 6, 10}

Graphing Relations are they functions?

- Vertical line test



f



not

f

not

4.4 Equations + Relations

$2x+y=8$

Solution set

D: {−4, −2, 0, 2, 4}

R: {16, 12, 8, 4, 0}

plot Points

$2(-4)+y=8$

$-8+y=8$

$+8 \quad +8$

$y=16$

$8+y=8$

$-8 \quad -8$

$y=0$

$0+y=8$

$y=8$

$-4+y=8$

$+4 \quad +4$

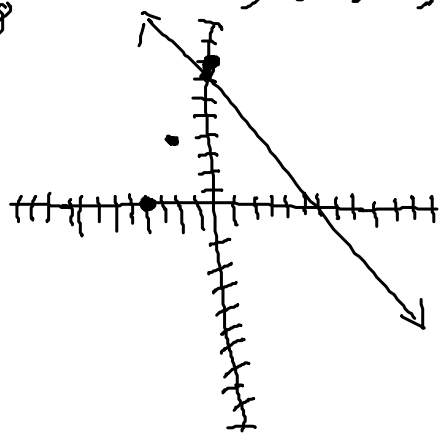
$y=12$

$4+y=8$

$-4 \quad -4$

$y=4$

R: {0, 4, 8, 12, 16}



4.5 Graphing linear Eq.

x, y intercept way

$x + 5y = 4$

$0 + \frac{5y}{5} = \frac{4}{5}$

$y = \frac{4}{5} \Rightarrow (0, \frac{4}{5})$

$x + 5(0) = 4$

$x = 4$

$(4, 0)$

$x + 5y = 4$ ← Standard form

$4 = x + 5y$? NO

$5y + x = 4$ NO

Slope Int form

$x + 5y = 4$

$-x \quad\quad -x$

$\frac{5y}{5} = \frac{-x}{5} + \frac{4}{5}$

$y = -\frac{1}{5}x + \frac{4}{5}$

$\therefore$

Arithmetic Sequence Formula

$A_n = a_1 + (n-1)d$

- A_n → Answer
- a_1 → 1st # in the sequence
- n → n^{th} term
- d → Distance

write an equation

3, 5, 7, ...

$A_n = 3 + (n-1)2$

$= 3 + 2n - 2$

$A_n = 2n + 1$ find the 10th term

$2(10) + 1$ 21

No 4.8 info

☆4.6 Functions - Practice

$f(x) = x^2 - x + 1$

$f(2) = 2^2 - 2 + 1$

$= 4 - 2 + 1$

$= 2 + 1$

$= 3$

$g(-2a) = (-2a)^2 - (-2a) + 1$

$= 4a^2 + 4a + 1$

Cannot combine any terms.