



Grade 6 Math

Date: Oct. 26



input	output
1	16
2	25
3	34
4	43
5	52
6	61

16

9

\* What is the input rule?:  
Start at 1, then add 1 each time

\* What is the output rule?:  
Start 16, then add 9 each time

\* Write an expression that relates the input to the output using a variable.

$$\boxed{9 \times n} \quad \boxed{+ 7}$$

$$9 \times n + 7$$

What is the pattern rule that relates the input to the output?

→ multiply the input by 9, then add 7 to get output.

Check  $9 \times n$

$n=1$  out = 16  
 $9 \times n$   
 $9 \times 1$   
 $9$   
 Not 16  
 so add 7  
 to get 16

What is the output value if the input is 15?

$$9 \times n + 7$$

$$9 \times 15 + 7$$

$$135 + 7$$

$$142$$

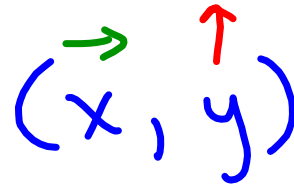
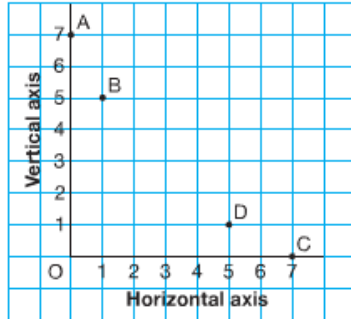
$n=15$  out = 142

# Homework solutions Page 26 #1,2,3

**Practice**

1. Match each ordered pair with a letter on the coordinate grid.

- a) (1, 5) **B**
- b) (5, 1) **D**
- c) (0, 7) **A**
- d) (7, 0) **C**

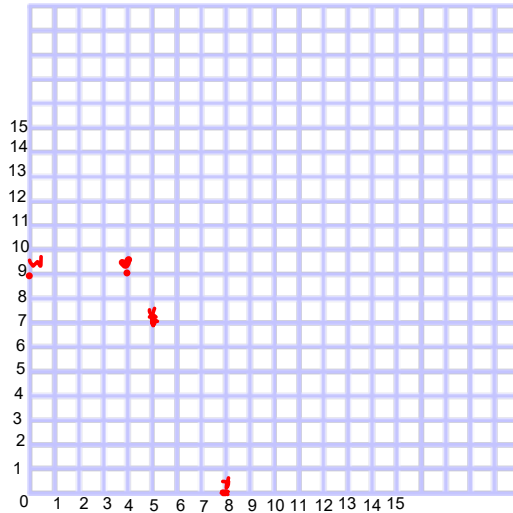


2. Draw and label a coordinate grid.

Plot each ordered pair.

Explain how you moved to do this.

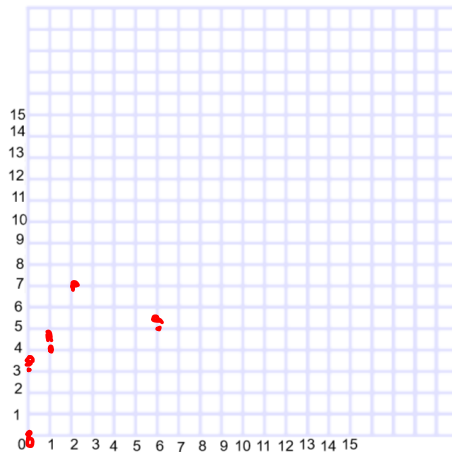
- a) V(5, 9)
- b) W(0, 9)
- c) X(5, 7)
- d) Y(8, 0)

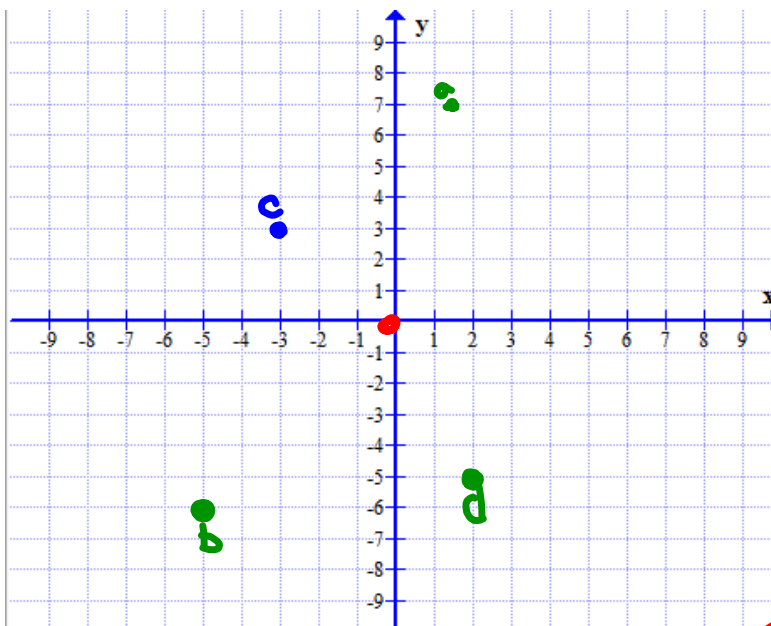


3. Draw and label a coordinate grid.

Plot each point on the grid.

- a) P(2, 7)
- b) Q(6, 5)
- c) R(1, 4)
- d) S(0, 3)
- e) O(0, 0)





Halloween Plot

Plot  $(\overset{\leftarrow}{x}, \overset{\uparrow}{y})$

a)  $(\rightarrow, \uparrow) (1.5, 7)$

b)  $(\leftarrow, \downarrow) (-5, -6)$

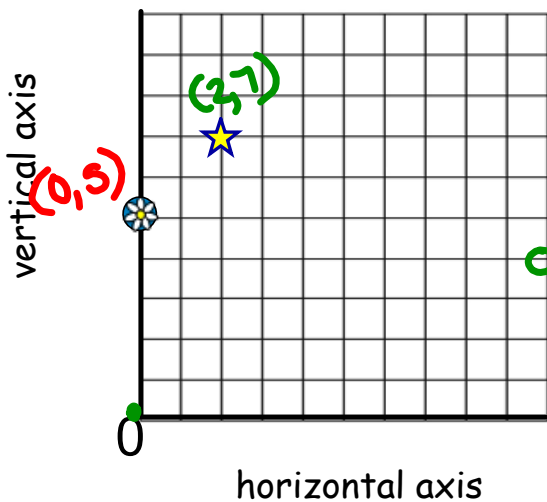
c)  $(\leftarrow, \uparrow) (-3, 3)$

d)  $(2, -5)$

Different from yesterday

$(\overset{\leftarrow}{x}, \overset{\downarrow}{y})$

Let's try



The first number tells how far you move right. The second number tells how far you move up.

$(x, y)$   
different from yesterday



From O, to reach point B, we must move \_\_\_\_\_ units right and \_\_\_\_\_ units up.

We write these numbers in brackets ( , )

These are called coordinates or ordered pairs.

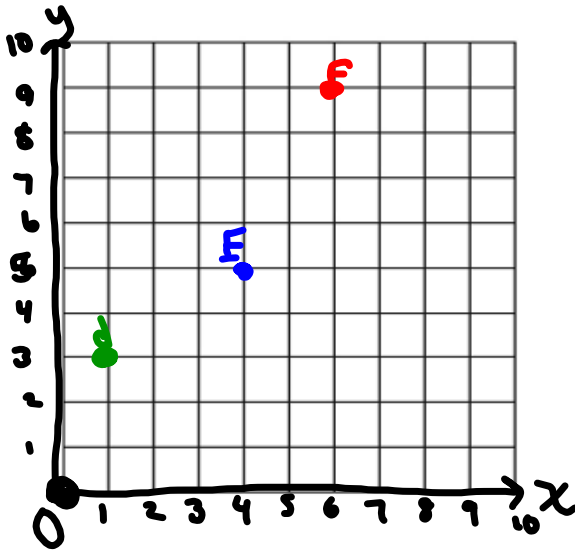
We say: B has coordinates ( , )

We write: B( , )

Now write the ordered pairs for both the points C and D  

You try plotting these three points

\*Label your axis first



D(1, 3)

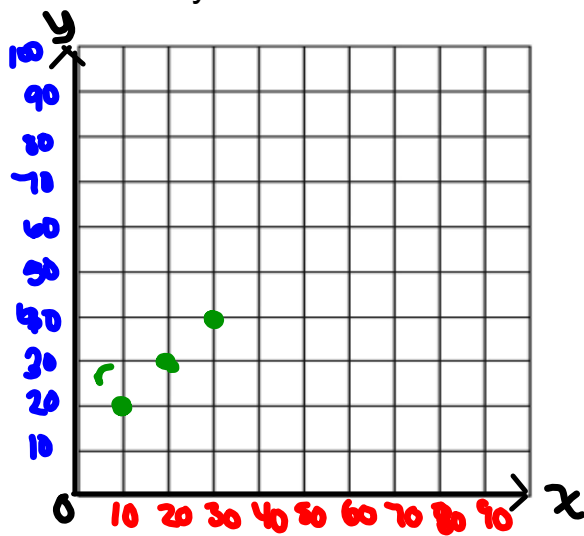
E(4, 5)

F(6, 9)

$(x, y)$

You try plotting these three points

\*Label your axis first



Watch scales

R(10, 20)

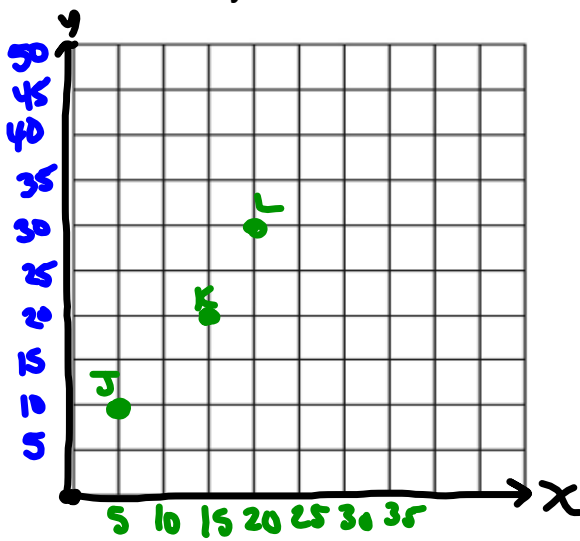
S(20, 30)

T(30, 40)

use  
multipk  
of 10's

You try plotting these three points

\*Label your axis first

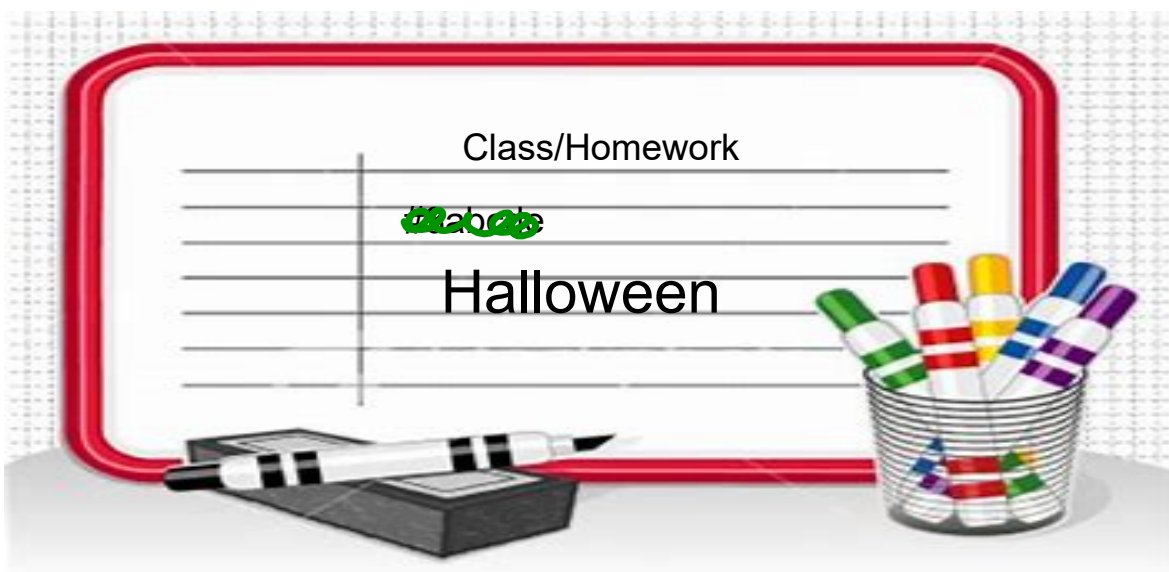


J(5, 10)

K(15, 20)

L(20, 30)

↓  
multiples  
of  
5  
So use  
scale  
of 10

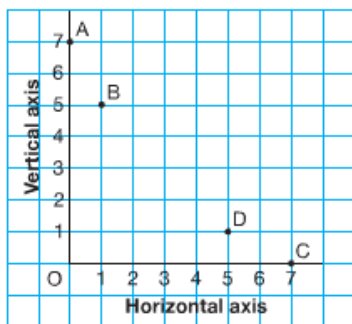




**Practice**

1. Match each ordered pair with a letter on the coordinate grid.

- a) (1, 5)
- b) (5, 1)
- c) (0, 7)
- d) (7, 0)



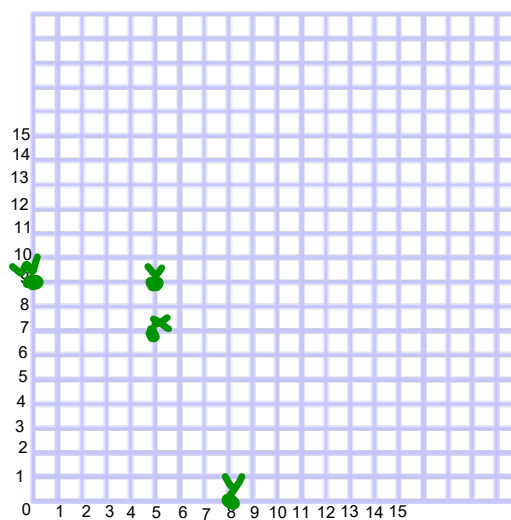
2. Draw and label a coordinate grid.

Plot each ordered pair.

Explain how you moved to do this.

- a)  $V(5, 9)$       b)  $W(0, 9)$       c)  $X(5, 7)$       d)  $Y(8, 0)$

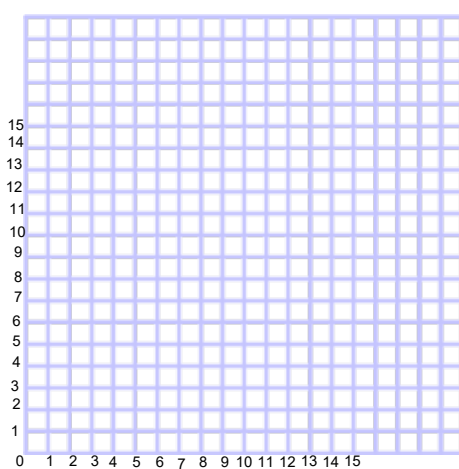
$$V(\overset{\rightarrow}{5}, \overset{\uparrow}{9})$$



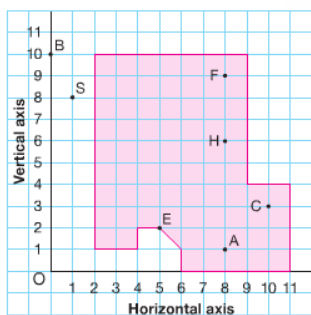
3. Draw and label a coordinate grid.

Plot each point on the grid.

- a)  $P(2, 7)$       b)  $Q(6, 5)$       c)  $R(1, 4)$       d)  $S(0, 3)$       e)  $O(0, 0)$



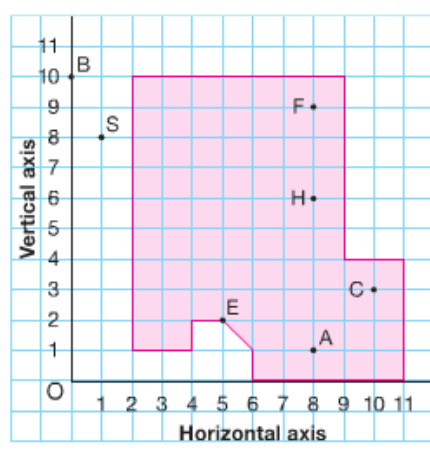
4. Mr. Kelp's class went to the Vancouver Aquarium. Angel drew this map of the aquarium site.



Write the ordered pair for each place.

- a) Amazon Jungle Area: A
- b) Beluga Whales: B
- c) Carmen the Reptile: C
- d) Entrance: E
- e) Frogs: F
- f) Sea Otters: S
- g) Sharks: H

5. Use the map in question 4.
- a) To get to the Pacific Canada Pavilion at point P:  
You move 1 square left and 3 squares up from the entrance, E.  
What are the coordinates of P?
  - b) To get to the Clam Shell Gift Shop at point G:  
You move 5 squares left and 4 squares down from the sharks, H.  
What are the coordinates of G?



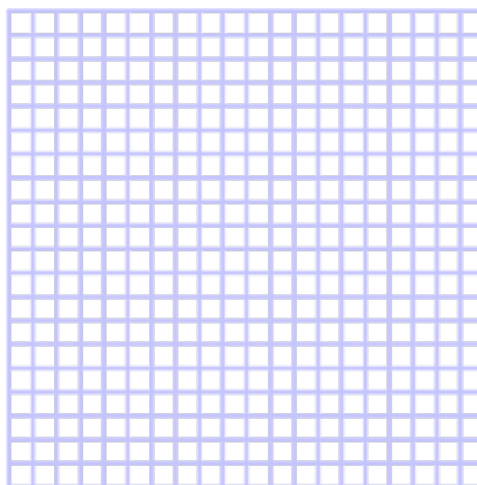


6. Draw and label a coordinate grid.

Plot each point on the grid.

How did you decide which scale to use on the axes?

- a) A(10, 40)    b) B(10, 0)    c) C(20, 20)    d) D(0, 30)    e) E(50, 60)

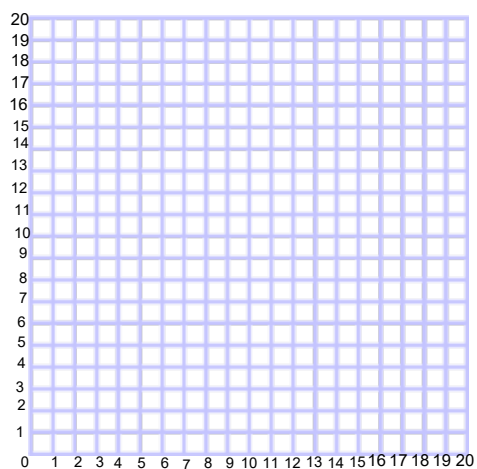


7. Draw and label a coordinate grid.

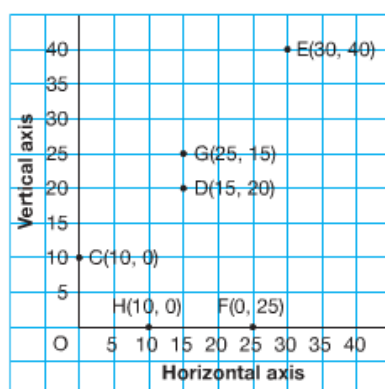
Plot each point on the grid.

How did you decide which scale to use on the axes?

- a) J(14, 20)    b) K(6, 12)    c) L(0, 18)    d) M(8, 4)    e) N(16, 0)



8. A student plotted 6 points on a coordinate grid, then labelled each point with its coordinates. The student has made some mistakes. For each point that has been labelled incorrectly:
- Explain the mistake.
  - Write the coordinates that correctly describe the location of the point.







9. Draw and label a coordinate grid.  
Use a scale of 1 square represents 5 units.  
Plot 5 points on the grid.  
Use an ordered pair to describe the location of each point.

10. a) The first number in the ordered pair for Point A is 0.  
What does this tell you about Point A?
- b) The second number in the ordered pair for Point B is 0.  
What does this tell you about Point B?

## Attachments

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Pumpkin Graphing.pdf