

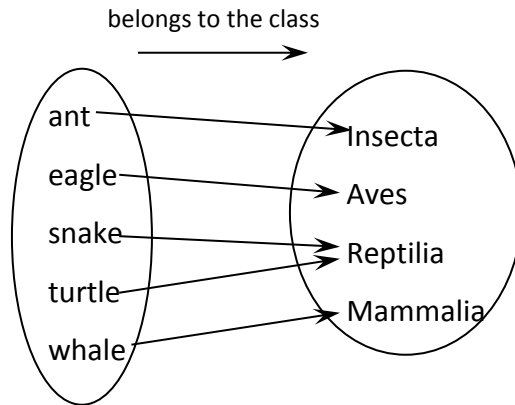
# Math 10

## Lesson 3–1 Answers

### Lesson Questions

#### Question 1

- a) The relation shows the association “belongs to the class” between a set of animals and a set of classes.
- b) i) {(ant, Insecta), (eagle, Aves), (snake, Reptilia), (turtle, Reptilia), (whale, Mammalia)}
- ii)

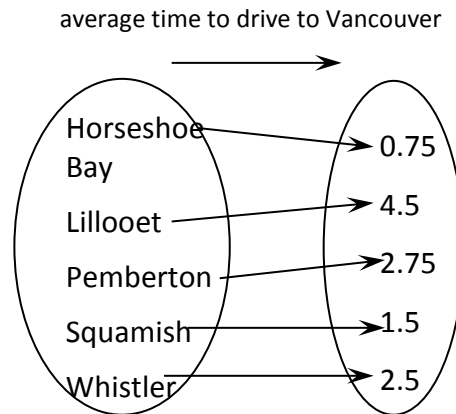


#### Question 2

Answer: a)

Town	Average Time (h)
Horseshoe Bay	0.75
Lillooet	4.5
Pemberton	2.75
Squamish	1.5
Whistler	2.5

b)



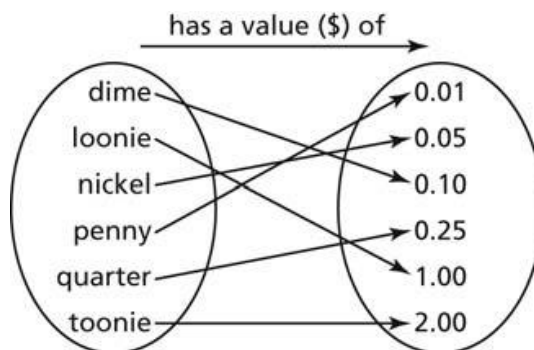
## Assignment

- When we are trying to find trends or patterns in the numbers, some representations (table of data, graph, mapping, equation) reveal the pattern better than others (ordered pairs).

2. a)

- The relation shows the association “has a value, in dollars, of” from a set of coins to a set of numbers.
- As a set of ordered pairs:  
 $\{(penny, 0.01), (nickel, 0.05), (dime, 0.10), (quarter, 0.25), (loonie, 1.00), (toonie, 2.00)\}$

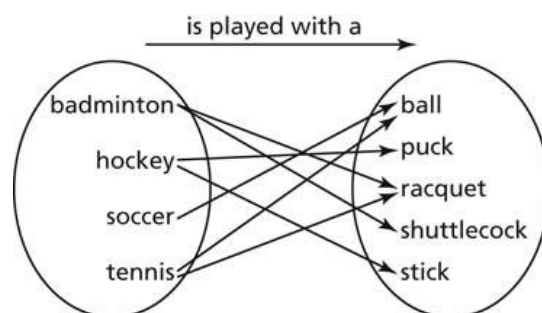
As an arrow diagram:



b)

- The relation shows the association “is played with a” from a set of sports to a set of equipment.
- As a set of ordered pairs:  
 $\{(badminton, racquet), (badminton, shuttlecock), (hockey, puck), (hockey, stick), (tennis, ball), (tennis, racquet), (soccer, ball)\}$

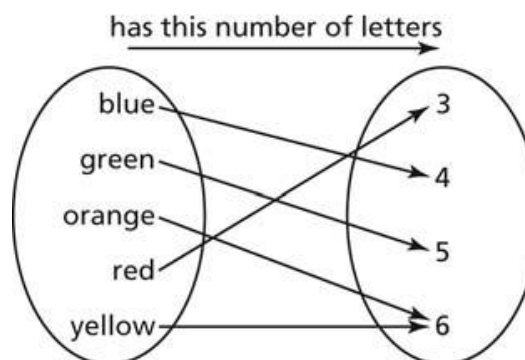
As an arrow diagram:



3. a) As a table:

Word	Number of Letters
blue	4
green	5
orange	6
red	3
yellow	6

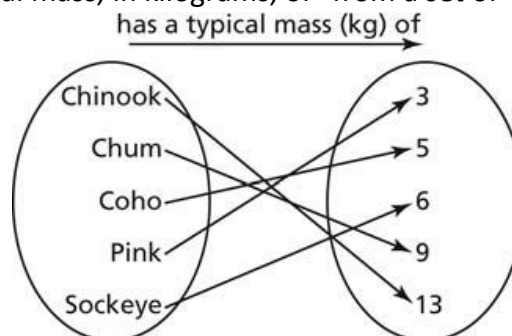
b) As an arrow diagram:



- a) The relation shows the association “has a typical mass, in kilograms, of” from a set of salmon species to a set of masses.

- As a set of ordered pairs:  
 $\{(Chinook, 13), (Chum, 9), (Coho, 5), (Pink, 3), (Sockeye, 6)\}$

c) As an arrow diagram:



5.

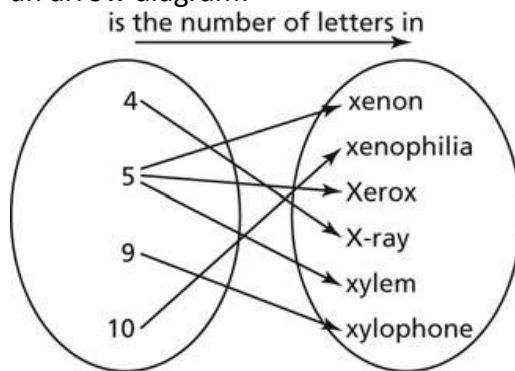
- a) The arrow diagram shows a relation with the association “is the number of letters in” from a set of numbers to a set of words beginning with the letter Z.
- b) As a set of ordered pairs:  
 $\{(3, \text{Zen}), (4, \text{zany}), (4, \text{zero}), (5, \text{zebra}), (6, \text{zombie}), (7, \text{Zamboni}), (8, \text{zeppelin})\}$

As a table:

Number	Word beginning with Z
3	Zen
4	zany
4	zero
5	zebra
6	zombie
7	Zamboni
8	zeppelin

- c) Chosen words and representations may vary. For example:

As an arrow diagram:

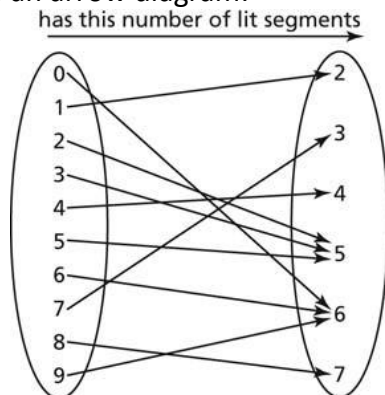


6.

- a)  $\{(0, 6), (1, 2), (2, 5), (3, 5), (4, 4), (5, 5), (6, 6), (7, 3), (8, 7), (9, 6)\}$   
 Some digital clocks may show the number 9 with 5 line segments.

- b) Representations may vary. For example:

As an arrow diagram:



As a table of values:

Digit	Number of lit segments
0	6
1	2
2	5
3	5
4	4
5	5
6	6
7	3
8	7
9	6