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)

ant

eagle

snake

turtle

whale

Insecta

Aves

Reptilia

Mammalia

belongs to the class

**Question 2**

Answer: a) b)

Horseshoe Bay

Lillooet

Pemberton

Squamish

Whistler

0.75

4.5

2.75

1.5

2.5

average time to drive to Vancouver



**Assignment**

1. 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)

i) The relation shows the association “has a value, in dollars, of” from a set of coins to a set of numbers.

ii) 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)

i) The relation shows the association “is played with a” from a set of sports to a set of equipment.

ii) 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: b) As an arrow diagram:



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

b) 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, Zen), (4, zany), (4, zero), (5, zebra), (6, zombie), (7, Zamboni), (8, zeppelin)}

As a table:

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:

