

Quiz #2

Math Time pp. 9

A.

1. #4

2. #8

3. #9

B.

1. #1

2. #8

3. #10

C.

1. #4

2. #10

3. #13

4. #14

Quiz #2

A.

1. 13.8 and 15.6

$$A.M. = \frac{13.8 + 15.6}{2}$$

$$A.M. = 14.7$$

2. $4 - 7\sqrt{7}$ and $2 + 3\sqrt{7}$

$$A.M. = \frac{4 - 7\sqrt{7} + 2 + 3\sqrt{7}}{2}$$

$$A.M. = 3 - 2\sqrt{7}$$

3. $2x + 3y$ and $x - 5y$

$$A.M. = \frac{(2x + 3y) + (x - 5y)}{2}$$

$$A.M. = \frac{3x - 2y}{2}$$

B.

1. $a_1 = 2$

$$a_2 = 2 + 5 = 7$$

$$a_3 = 7 + 5 = 12$$

$$a_4 = 12 + 5 = 17$$

$$a_5 = 22$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_5 - a_1}{5 - 1}$$

$$d = \frac{22 - 2}{4}$$

$$d = 5$$

2. $a_1 = 24$

$$a_2 = 24 + (-7.2) = 16.8$$

$$a_3 = 16.8 + (-7.2) = 9.6$$

$$a_4 = 9.6 + (-7.2) = 2.4$$

$$a_5 = 2.4 + (-7.2) = -4.8$$

$$a_6 = -12$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_6 - a_1}{6 - 1}$$

$$d = \frac{-12 - 24}{5}$$

$$d = -7.2$$

$$3. a_1 = 2\sqrt{5}$$

$$a_2 = 2\sqrt{5} + 4\sqrt{5} = 6\sqrt{5}$$

$$a_3 = 6\sqrt{5} + 4\sqrt{5} = 10\sqrt{5}$$

$$a_4 = 14\sqrt{5}$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_4 - a_1}{4 - 1}$$

$$d = \frac{14\sqrt{5} - 2\sqrt{5}}{3}$$

$$d = 4\sqrt{5}$$

C.

$$1. a_1 = 31$$

$$a_2 = 31 + 18 = 49$$

$$a_3 = 49 + 18 = 67$$

$$a_4 = 85$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_4 - a_1}{4 - 1}$$

$$d = \frac{85 - 31}{3}$$

$$d = 18$$

$$2. a_1 = 6 - 8 = -2$$

$$a_2 = 6$$

$$a_3 = 6 + 8 = 14$$

$$a_4 = 14 + 8 = 22$$

$$a_5 = 30$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_5 - a_2}{5 - 2}$$

$$d = \frac{30 - 6}{3}$$

$$d = 8$$

$$3. A.M. = \frac{x - 10\sqrt{3} + x + 10\sqrt{3}}{2}$$

$$A.M. = x$$

$$4. a_1 = -3\sqrt{3}$$

$$a_2 = -3\sqrt{3} + 3\sqrt{3} = 0$$

$$a_3 = 0 + 3\sqrt{3} = 3\sqrt{3}$$

$$a_4 = 3\sqrt{3} + 3\sqrt{3} = 6\sqrt{3}$$

$$a_5 = 6\sqrt{3} + 3\sqrt{3} = 9\sqrt{3}$$

$$a_6 = 9\sqrt{3} + 3\sqrt{3} = 12\sqrt{3}$$

$$a_7 = 15\sqrt{3}$$

$$d = \frac{a_n - a_k}{n - k}$$

$$d = \frac{a_7 - a_1}{7 - 1}$$

$$d = \frac{15\sqrt{3} - (-3\sqrt{3})}{6}$$

$$d = 3\sqrt{3}$$