

MATHEMATICS DEPARTMENT
 Math1351 - Quiz# 1-
 First Semester 2019/2020

section 1

Name..... Key

Number.....

Duha Sharha

Question 1.

a) Let

$$A = \{0, 1, 12, 15, 8\}$$

$$B = \{15, 9, 2, 4, 3, 8\}$$

$$C = \{x : x \text{ is a natural number less than } 6\} = \{1, 2, 3, 4, 5\}$$

$$U = \{0, 1, 2, 3, 4, 5, 8, 9, 11, 12, 15\}$$

$$C' = \{0, 8, 9, 11, 12, 15\}$$

Find the following:

1) $A \cup C'$

$$= \{0, 1, 12, 15, 8, 9, 11\}$$

2) $U - B = B'$

$$= \{0, 1, 5, 11, 12\}$$

3) $B' \cap A$

$$= \{0, 1, 12\}$$

Question 2.

a) Evaluate the following

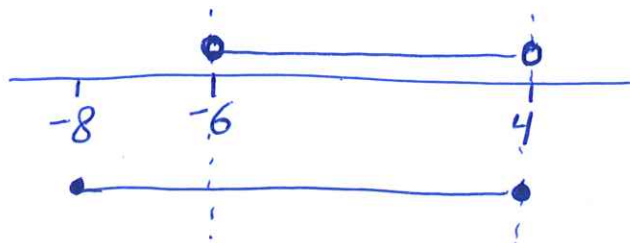
$$(-3)^2 + 16 - 5 \cdot 4 - 5 + |6 - 10| = 9 + 16 - 20 - 5 + |-4|$$

$$9 + 16 - 20 - 5 + 4 = 4$$

\downarrow
 5×4

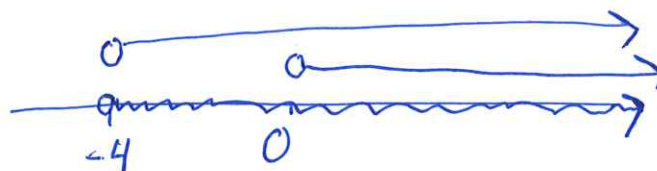
b) Find $(-6, 4) \cap [-8, 4]$

$$(-6, 4)$$



c) Find $x > 0 \cup x > -4$

$$(-4, \infty)$$



Good Luck :)

MATHEMATICS DEPARTMENT
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 First Semester 2019/2020

section 10

Name..... key

Number.....

Duha Sharha

Question 1.

a) Let

$$A = \{0, 7, 15, 8\}$$

$$B = \{15, 9, 4, 3, 8\}$$

$$C = \{x : x \text{ is a natural number less than } 5\} = \{1, 2, 3, 4\}$$

$$U = \{0, 1, 2, 3, 4, 7, 8, 9, 11, 15\}$$

Find the following:

1) $A \cup B'$

$$\{0, 1, 2, 7, 11, 15, 8\}$$

$$B' = \{0, 1, 2, 7, 11\}$$

2) $U - A = A'$

$$= \{1, 2, 3, 4, 9, 11\}$$

3) $B' \cap C$

$$= \{1, 2\}$$

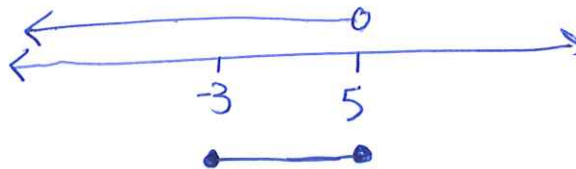
Question 2.

a) Write the following set in a second way

$$\{x : x \text{ is a natural number less than } 2\} = \{1\}$$

b) Find $(-\infty, 5) \cap [-3, 5]$

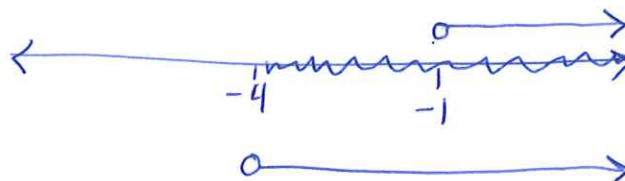
$$[-3, 5)$$



c) Find $x > -1 \cup x > -4$

$$(-4, \infty)$$

Good Luck :)



MATHEMATICS DEPARTMENT
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section 6

• Name..... Key

• Number.....

Duha Sharha

Question 1.

a) Let

$$A = \{0, 7, 5, 9\}$$

$$B = \{5, 8, 4, 3, 9\}$$

$$C = \{x : x \text{ is a natural number greater than 2 and less than 6}\} = \{3, 4, 5\}$$

$$U = \{0, 1, 2, 3, 4, 5, 7, 8, 9, 11\}$$

Find the following:

1) $A' \cap C$

$$A' = \{1, 2, 3, 4, 8, 11\}$$

$$= \{3, 4\}$$

2) $B - C$

$$\{8, 9\}$$

3) $B \cup C$

$$\{5, 8, 4, 3, 9\}$$

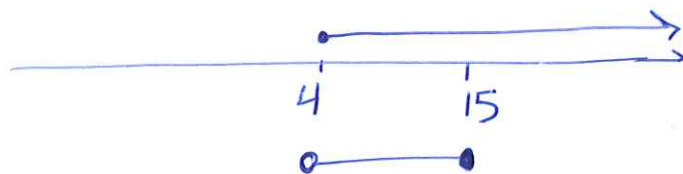
Question 2.

a) Evaluate the following:

$$\frac{-5^2 + 6 - 2.3}{5 - |5 - 15|} = \frac{-25 + 6 - 6}{5 - 10} = \frac{-25}{-5} = 5$$

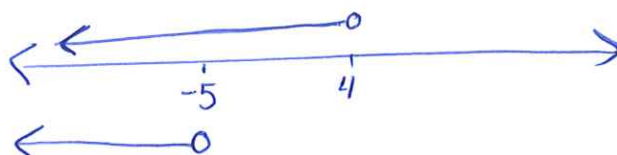
b) Find $[4, \infty) \cap (4, 15]$

$$= (4, 15]$$



c) Find $x < 4 \cup x < -5$

$$(-\infty, 4)$$



Good Luck :)

MATHEMATICS DEPARTMENT
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 First Semester 2019/2020

section 14

Name..... key

Number.....

Duha Sharha

Question 1.

a) Let

$$A = \{0, 7, 15, 8\}$$

$$B = \{15, 9, 4, 3, 8\}$$

$$C = \{x : x \text{ is a natural number less than } 5\} = \{1, 2, 3, 4\}$$

$$U = \{0, 1, 2, 3, 4, 7, 8, 9, 11, 15\}$$

Find the following:

1) $A' \cup B$

$$A' = \{1, 2, 3, 4, 9, 11, \dots\}$$

$$= \{1, 2, 3, 4, 9, 11, 15, 8\}$$

2) $U - C = C'$

$$= \{0, 7, 8, 9, 11, 15\}$$

3) $B \cap C'$

$$\{15, 9, 8\}$$

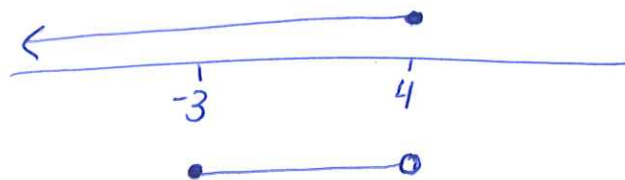
Question 2.

a) Write the following set in a second way

$$\{1, 2, 3, 4, 5, 6, 7\} = \{x : x \text{ is a natural number less than } 8\}$$

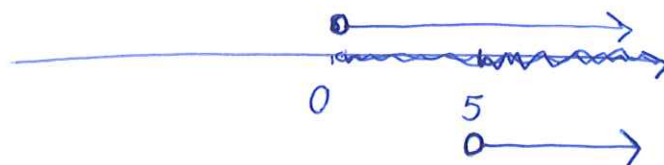
b) Find $(-\infty, 4] \cap [-3, 4)$

$$[-3, 4)$$



c) Find $x > 5 \cup x > 0$

$$(0, \infty)$$



Good Luck :)

MATHEMATICS DEPARTMENT

Math1351 - Quiz# 1-

First Semester 2019/2020

• Name..... Key

• Number..... 12 D

Duha Sharha

Question 1.

a) Let

$$A = \{0, 7, 5, 9\}$$

$$B = \{5, 8, 4, 9\}$$

$$C = \{x : x \text{ is a natural number greater than 2 and less than 6}\} = \{3, 4, 5\}$$

$$U = \{0, 1, 2, 3, 4, 5, 7, 8, 9, 11, 13\}$$

Find the following:

1) $A' \cap C$

$$= \{3, 4\}$$

$$A' = \{1, 2, 3, 4, 8, 11, 13\}$$

$$B' = \{0, 1, 2, 3, 7, 11, 13\}$$

2) $C - B = C \cap B'$
 $= \{3\}$

3) $B \cup A$

$$= \{5, 8, 4, 9, 0, 7\}$$

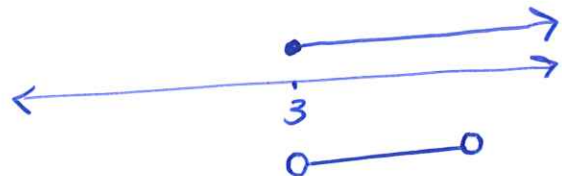
Question 2.

a) Evaluate the following:

$$\frac{-4^2 + 5 - 2 \cdot 3}{5 - |18 - 2|} = \frac{-16 + 5 - 6}{5 - 16} = \frac{-11 - 6}{-11} = \frac{-17}{-11} = \frac{17}{11}$$

b) Find $[3, \infty) \cap (3, 15)$

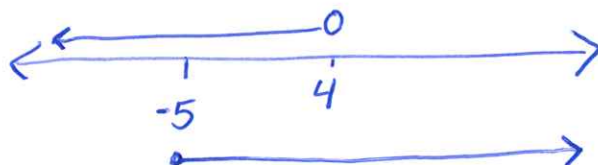
$$(3, 15)$$



c) Find $x < 4 \cup x \geq -5$

$$(-\infty, \infty)$$

Good Luck :)



Section 7

10/10

MATHEMATICS DEPARTMENT
Math1351 - Quiz# 1-
First Semester 2019/2020

• Name: Keen Majed Alqadi • Number: 1191086 Duha Sharha

Excellent

Question 1.

a) Let

$$A = \{0, 1, 7, 15, 8\}$$

$$B = \{15, 9, 2, 4, 3, 8\}$$

$$U = \{0, 1, 2, 3, 4, 7, 8, 9, 11, 15\} \quad C = \{x : x \text{ is a natural number less than } 4\} = \{1, 2, 3\}$$

$$B = \{15, 9, 2, 4, 3, 8\}$$

$$U = \{0, 1, 2, 3, 4, 7, 8, 9, 11, 15\}$$

Find the following:

1) $A \cup B'$

$$B' = \{0, 1, 7, 11\}$$

$$A = \{0, 1, 7, 15, 8\}$$

$$A \cup B' = \{0, 1, 7, 11, 15, 8\}$$

2) $U - C$

$$C = \{1, 2, 3\}$$

$$U - C = \{0, 4, 7, 8, 9, 11, 15\}$$

3) $B' \cap C'$

$$B' = \{0, 1, 7, 11\}$$

$$C' = \{0, 4, 7, 8, 9, 11, 15\}$$

$$B' \cap C' = \{0, 7, 11\}$$

Question 2.

a) Evaluate the following

$$(-3)^2 + 16 - 5 \cdot 4 + |8 - 10| =$$

$$9 + 16 - 20 + 2$$

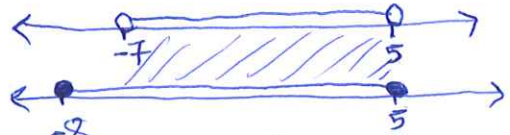
~~$$9 + 16 - 20 + 2 = 7$$~~

$$9 + 16 - 20 + 2$$

$$25 - 20 + 2$$

$$5 + 2 = \boxed{7}$$

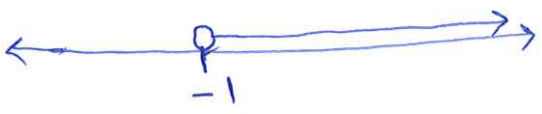
b) Find $(-7, 5) \cap [-8, 5]$



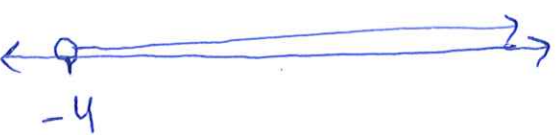
$= (-7, 5)$ open interval

$$\{x : -7 < x < 5\}$$

c) Find $x > -1 \cup x > -4$



Good Luck :)



$= (-4, \infty)$ open interval

$$\{x : x > -4\}$$