

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

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Question 1.

a) Let

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

$$B = \{16, 9, 2, 4, 5, 8\}$$

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

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

Find the following:

1) $A \cup B^c$

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

$$B^c = \{0, 1, 7, 11\}$$

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

2) $U - C$

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

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

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

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

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

$$(a) + 16 - (5 \times 4) + |8 - 10| =$$

$$9 + 16 - 20 + |2|$$

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

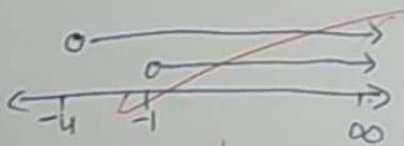
$$\{x : x \text{ is } (-7, 5) \cap [-8, 5]\}$$

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

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

Interval $\infty > -1 \cup \infty > -4$

Good Luck :)



$$(-4, \infty)$$

$$\Rightarrow (-1, \infty)$$

MATHEMATICS DEPARTMENT
Math1351 - Quiz# 3-
First Semester 2019/2020

section 14D

Question 1. Graph the function:

1) $f(x) = x^2 - 6x + 9$

① $a = 1$ ~~upward~~ upward $1 > 0$

② vertex

$(\frac{-b}{2a}, f(\frac{-b}{2a}))$

$x = \frac{-b}{2a} = \frac{-(-6)}{2(1)} = \frac{6}{2} = 3$

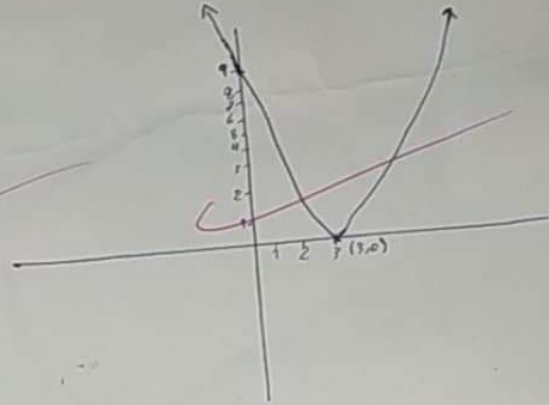
$f(\frac{-b}{2a}) = (3)^2 - 6(3) + 9 = 9 - 18 + 9 = -9 + 9 = 0$
 $(3, 0)$

③ x-intercept
 $b^2 - 4ac$
 $(-6)^2 - 4(1)(9)$
 $36 - 36 = 0$

④ y-intercept

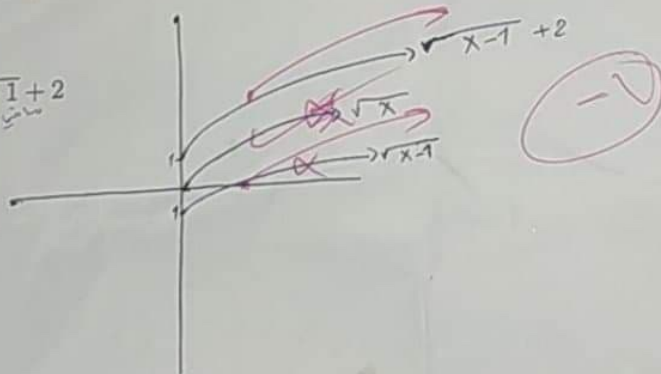
$0^2 - 6(0) + 9$
 $= 0 - 0 + 9$
 $= 9$
 $(0, 9)$

maximum 9



2) $f(x) = \sqrt{x-1} + 2$

سابقاً اقواب فصلتو



3) $f(x) = x^3 - 3$

سابقاً اقواب اذا بنزلها 3 وحدات

