1. Alisher Tuzgenbayev Pol. Sci. – CP

2. Refresh in my mind the MATH

Questions

(a) +6.5

i. $\prod$ - pi (3.14...) (?)

0.75 ii. Σ - sum of terms

(8)

O. $4 \geq x - 7$

$7 + 4 \geq x$

$x \leq 11$

O $-9x + 2 > 3$

$-9x > 1$

$x < -\frac{1}{9}$

O. $|x - 2| \leq 2$

$-2 \leq x - 2 \leq 2$

$0 \leq x \leq 4$

✓ $2e^{6x} = 18$

$e^{6x} = 9$

??

✓ $e^{x^2} = 1$

???

VI ✓ $\ln(x^2) = 5$

???

VII ✓ $\sum_{n=1}^{10} 3 + n$

???

VIII O. $4! = 4 \times 3 \times 2 \times 1 = 24$

IX O. $\left(\frac{x^4 y^{-3}}{x^2 y^{-3}}\right)^3$

$(x^2 y^{-6})^3 = x^6 y^{-18}$

(c) Did not say solve, factor

✓ $m^2 + 3m + 2$

$D = 9 - 8 = 1$

$m_{1,2} = \frac{-3 \pm 1}{2} = \begin{bmatrix} -1 \\ -2 \end{bmatrix}$

1/1

0.75 $x^2 + x$

$x(x+1)$

$x_1 = 0 \quad x_2 = -1$

✓ $x^2 + 5x + 6$

$D = 25 - 24 = 1$

$x_{1,2} = \frac{-5 \pm 1}{2} = \begin{bmatrix} -2 \\ -3 \end{bmatrix}$

2. (a) +4

○ $\in$ element Belongs

✓ ∀ not (?)

(b)

○ $A \cup B = \{3, 4, 5, \text{hat}, \text{triangle}, \text{forklift}\}$

○ $\{4, 5, 6, 7, 8\}$

○ $\{4, 5\}$

3. 0.5 +2 (a) abrupts elaborate more

(b) tangent line

0.5 (c) $f(x)$ elaborate

4. (a) –

(b) –

+0

5. +3

(a) 0

(b) $6m - 8$

(c) $\frac{x^4}{4} + \frac{5x^3}{3} + \frac{5x^2}{2} + C$

don't combine alg. & fractions

(d) e^x (?)

6. +3.75

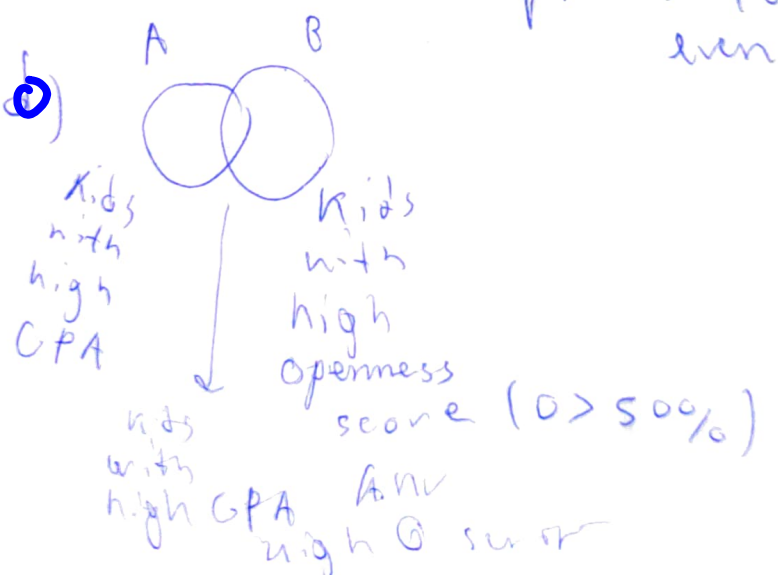
(a) Probability of event A happening

(b) Doesn't depend on happening of another event (such as $1 - P(B)$)

(c) Probability of an event based on an information and the priors for this event

0.75

(d)



7. asked difference, not example

0.5

Continuous variable

↳ household income in number

1.5

discrete variable:

↳ household income in 4 categories

8) probability function for discrete variables