Pre-Assessment

Cardine Pippert, PS. American Politics

I am excited to regain some of my math skills. I love math and have taken lots of courses but it has been 3 years since my last ~~course~~ ~~th~~ calculus course in college.

1.a.~~i.~~ not sum +6.75 16

0.75 ii. Σ means "sum" in a series

(b.i.) $4 \geq x - 7$

$11 \geq x$

(ii.) $-9x + 2 > 3$

$-9x > 1$

$x < -1/9$

(iii.) $|x - 2| \leq 2$

$x - 2 \leq 2$ or $-(x-2) \leq 2$

$x \leq 4$ $-x + 2 \leq 2$

$x \geq 0$

$0 \leq x \leq 4$

(iv.) $2e^{6x} = 18$

$e^{6x} = 9$

$\ln(e^{6x}) = \ln(9)$

$6x = \ln(9)$

$x = \frac{\ln(9)}{6}$

~~v.~~ $e^{x^2} = 1$

$\ln(e^{x^2}) = \ln(1)$

$x^2 = \ln(1)$

$x = \sqrt{\ln(1)}$

1 b. ~~vi.~~ $\ln(x^2) = 5$?

~~vii.~~ $\sum_{n=1}^{10} 3+n$?

viii. $4! = 4 \cdot 3 \cdot 2 \cdot 1 = 24$

ix. $\left(\frac{x^4 y^{-3}}{x^2 y^3}\right)^3 = \left(\frac{x^2}{y^6}\right)^3 = \frac{x^6}{y^{18}}$

1.C?

2. a. i. not sure (+0)

ii. not sure

b. i. not sure

ii. not sure

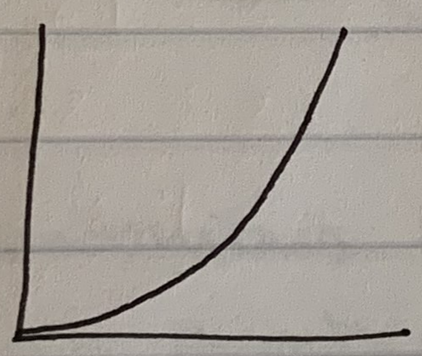
iii. not sure

+1.25

3. a. A continuous function will keep producing outputs with increasing numbers.

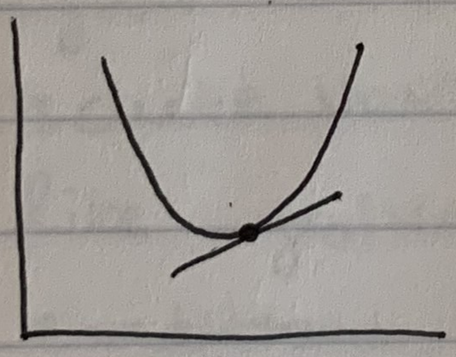
0.25

b.



0.25

c.



0.75

A tangent line allows you to take the slope at a certain point on a curve by being $\perp$ to that point

+2

4. a. One class on linear algebra

b. F

$$\begin{bmatrix} a & d & g & j \\ b & e & 4 & k \\ c & f & i & l \end{bmatrix}$$

+2

5. a) 4

b) 6m - 8

~~c)~~ cannot remember.

~~d)~~

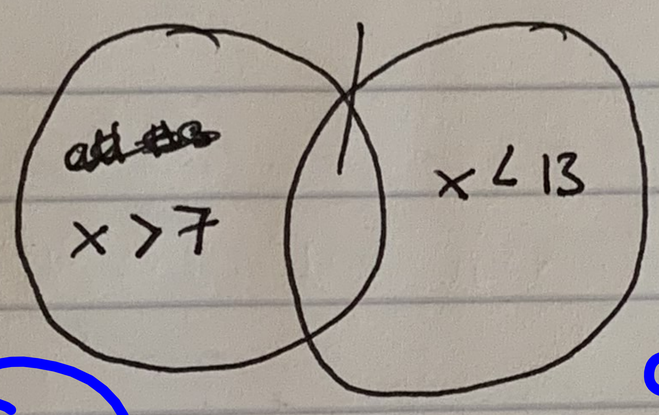
+3

6. a) probability of A occurring

b) an event that does not depend on anything prior - drawing a single card from a deck with replacement.

~~c)~~ not sure

d) ~~xxxxx~~ $7 < x < 13$



the middle is where the conditions overlap.

try more concrete example next time

f1

7. a) continuous variable is one that can be any number (including decimals) like height. (1.2 - 4.2 inclusive)

discrete variables are distinct ~~and~~ like yes/no answers or more specific conditions ~~that on a range where~~

(1.2 or 4 or 4.2 as 3 ~~con~~ variables)

"countable"