

ALG 2 CHAPTER 10 TEST ROUNDS REVIEW

Round 1

For (A) & (B), is the series Geometric or Arithmetic?
Write the formula in 1st term form

A) $13 + 17 + 21 + \dots + n$

B) $36 + 12 + 4 + \dots + n$

C) Find the # of terms of the series: $2 + 6 + 10 + 14 + \dots + 198$

D) Is the Geometric Series finite or infinite? Find the sum if possible: $48 + 12 + 3 + \dots$

Round 2

A) Evaluate the sum

$$\sum_{n=1}^7 (3n)$$

B) Evaluate the sum

$$\sum_{n=1}^5 3(4)^{n-1}$$

C) Use the Binomial Theorem to expand $(3x + 4y)^3$

D) Expand $(x + y)^5$

Round 3

A) How many ways can presidential candidates come in 1st, 2nd & 3rd from a field of 7 candidates?

B) 4 crayons are picked from a box of 15.
How many combinations?

C) Find all the intercepts using long or synthetic division or the box: $x^3 + x^2 - 5x + 3$

D) Solve: $8^2 = 16(3x + 2)$

Round 4

A) Solve: $3|x+2| + 5 = 23$

B) Simplify: $(10-7i)(10+7i)$

C) Convert 150° to radians. Give the ordered pair on the unit circle in exact form

D) Simplify $\frac{x^2+3x}{x+5} - \frac{10}{x+5}$

Round 5

A) Divide & Simplify: $\frac{15-5x}{x^2-x-6} \div \frac{5x}{x^2+6x+8}$

B) Rudi bought \$1000 worth of pro sports stock 8 yrs ago. It has depreciated steadily at 15% per year. How much is it worth now?

C) Write the inverse: $f(x) = \frac{3 + \sqrt{x-4}}{7}$

D) Solve: $-4\sqrt{10x-4} - 5 = 11$

KEY

Rounds Review Game

Unit

CHAPTER 10 TEST

Names of group members

	A	B	C	D	Total Points
1	$A_n = 4n$ $t(n) = 13 + 4(n-1)$	Geo $t(n) = 36\left(\frac{1}{3}\right)^{n-1}$	50	Finite 64	
2	84	11023	$27x^3 + 108x^2y + 144xy^2 + 64y^3$	$x^5 + 5x^4y + 10x^3y^2 + 10x^2y^3 + 5xy^4 + y^5$	
3	$7P_3$ 210	1564 1365	$(x-1)(x+3)(x-1)$ $x=1$ $x=-3$	$x = \frac{-1}{10} = -0.16$	
4	$x=4$ $x=-8$	149	$\frac{5\pi}{6}$ $\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$	$(x-2)$	
5	$-\frac{(x+4)}{x}$	\$272	$y = (7x-3)^2 + 4$	$x=2$	
6					
7					
8					

Rounds Total