A

Hon Alg 2 Ch 6 Fall 2016 In-class Review **Answer Sheet** ANSWERS

Name:

Station 1: State the Degree, Leading Coefficient, and End Behavior

1. Deg: 7 LC: 1 End Behavior $(\swarrow, \nearrow)$

2. Deg: 8 LC: -500 End Behavior $(\swarrow, \searrow)$

Station 2: Find all Real and Imaginary Solutions by factoring.

1. $x = 0, \pm 3i, \pm\sqrt{7}$

2. $x = \frac{5}{3}, \pm i\sqrt{6}$

Station 3: Find the quotient using Synthetic Division. $5x^3 - 21x^2 + 71x - 214$ $R = 653$

Station 4: Find the quotient.

a) $2x^2 + 6x - 9$

b) $3x^2 - 4x + 1$ $R = 15$

Station 5: Name by Degree and # of Terms

1. by Degree: Linear by # Terms Monomial

2. by Degree: Cubic by # Terms Trinomial

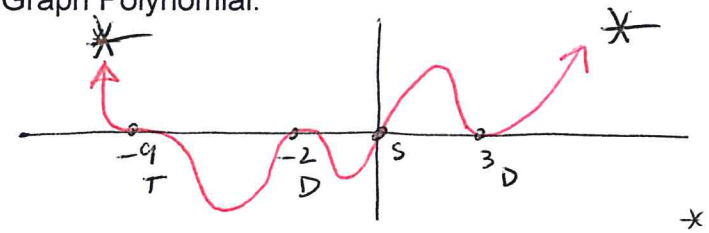
3. by Degree: Constant by # Terms Monomial

4. by Degree: Quadratic by # Terms Binomial

Station 6: Write eq of Polynomial graph EQ: $y = -x^2(x+6)^3(x+5)(x-4)(x-7)^2$

Station 7: Graph Polynomial:

NEG EVEN



Station 8: Graph to find Abs Max/Min, Rel Max/Min, & Zeros, if any

Absolute Max: $(0.28, 9.91)$

Absolute Min: NONE

Zeros: $-3, -1, 1$

Relative Max: $(-3, 0)$

Relative Min: $(-1.78, -3.23)$

Station 9:

1. Is it a factor? Explain your answer. No Remainder = 172, NOT Zero

2. Given the two zeros, divide to find remaining zeros. Other two zeros: $\pm 2i$

3. Find just the remainder of a quotient: Remainder = -167

Station 10: Expanded Form =

a) $243g^5 - 405g^4h + 270g^3h^2 - 90g^2h^3 + 15gh^4 - h^5$

b) $625c^4 + 2000c^3d + 2400c^2d^2 + 1280cd^3 + 256d^4$

B

Hon Alg 2 Ch 6 Fall 2016 In-class Review **Answer Sheet** Answers

Name:

Station 1: State the Degree, Leading Coefficient, and End Behavior

1. Deg: 6 LC: -27 End Behavior $(\swarrow, \searrow)$

2. Deg: 9 LC: 1000 End Behavior $(\swarrow, \nearrow)$

Station 2: Find all Real and Imaginary Solutions by factoring.

1. $x = 0, \pm 2, \pm i\sqrt{3}$

2. $x = \frac{4}{3}, \pm i\sqrt{3}$

Station 3: Find the quotient using Synthetic Division. $3x^3 - 14x^2 + 63x - 311$ $R = 1549$

Station 4: Find the quotient.

a) $3x^2 + 5x - 7$

b) $2x^2 - x + 7$ $R = -5$

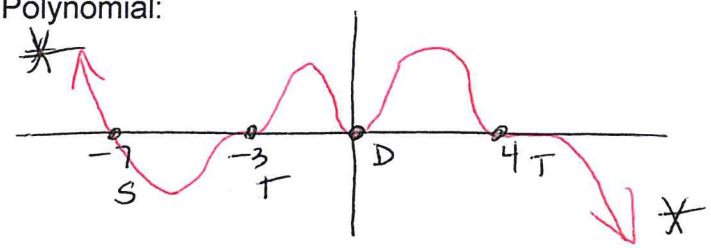
Station 5: Name by Degree and # of Terms

1. by Degree: Quadratic by # Terms Trinomial
2. by Degree: Constant by # Terms Monomial
3. by Degree: Cubic by # Terms Monomial
4. by Degree: Linear by # Terms Binomial

Station 6: Write eq of Polynomial graph EQ: $y = -x^3(x+8)^2(x+5)(x-6)(x-9)^3$

Station 7: Graph Polynomial:

NEG
ODD



Station 8: Graph to find Abs Max/Min, Rel Max/Min, & Zeros, if any

Absolute Max: NONE

Absolute Min: $(-2.41, -4.41)$

Zeros: $-2.95, -1.56, 0.16$

Relative Max: $(-0.72, 3.43)$

Relative Min: $(0.87, -3.19)$

Station 9:

1. Is it a factor? Explain your answer. Yes, Remainder $= 0$

2. Given the two zeros, divide to find remaining zeros. Other two zeros: $\pm i\sqrt{3}$

3. Find just the remainder of a quotient: Remainder = -130

Station 10: Expanded Form =

a) $p^5 - 10p^4q + 40p^3q^2 - 80p^2q^3 + 80pq^4 - 32q^5$

b) $256E^4 + 1280E^3F + 2400E^2F^2 + 2000EF^3 + 625F^4$