**Polynomial Review Sheet Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Write in standard form and name by term : 4x2 – 2 + 5x2 – 7x3

**Find the sum or difference for the following: (Combine like terms and do not add exponents)**

|  |  |
| --- | --- |
| 1. (4x3- 2x2 + 3) – (8x3+ 3x2- 2) | 1. (4x5-2x) + ( 5x5 + 3x4 – 7) |
| 1. (3m2+ 2m – 9) – ( 4m-3m2 + 7) | 1. (8ab + 5ab2) + ( 3ab2 - 9ab) |

**Multiply the following: (Multiply the coefficients and add the exponents)**

|  |  |
| --- | --- |
| 1. 5xy(-2xy + 3x2y – 3) | 1. (4x – 2)( 2x + 3) |
| 1. ( 3c +4)( 2c2 – 3c + 3) | 1. (5x + 4y )2 |
| 1. 3(3x – 2)2 - 4 | 1. Find the missing side if the perimeter   P = 9x2 -13x + 12  2x2 + 3x – 4 3x2  - 9x +3  ? |
| 13. Find the area of the figure :  2x + 1  3x2 – 2 | 14. Find the Area  X+3  2x – 4    2x -5 |

15. Find the area of the shaded region:

2x – 3

2x

2x2

3x3 – 2x + 3

16. What is the volume of a round pool cover if the radius is 2x + 4 and a height of 4x.

17. Find the perimeter of a triangle with sides x + 5, 2x – 6 and 2x2 +3x – 2 (Draw the figure and label )

18. A square has a side of 3x + 5 find the area.

19. What is the volume of a rectangular prism with length of 3x +1, the height of x + 3 and the width of 2x – 3.

20. A straight stretch of Ardrey Kell Road is being repaired because there are too many potholes. The distance across the road is 20 feet and the length is 20 yards. The road workers assess that they need to make the road 6 inches depth.

a) How much asphalt will they need to repair the road?

b) if the asphalt is $2 a cubic foot, how much will the road workers have to buy?