**Secondary Math 2 4.2 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Circles and Arc Length**

**Conceptual Understanding:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | find arc length, r=5, theta=180.PNG1. Length of $\hat{BCE}=$
2. Area of sector $BCE=$
 |  | find arc length, r=15, theta=30.PNG1. Length of $\hat{BC}=$
2. Area of sector $BC=$
 |

**Review Problems:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Find the $m∠DCE$. |  | Find $m\hat{XY}$. |
|  | Find the $m∠ECD$. Assume $\overbar{EC}$ is a diameter. |  | Find the $m∠FEG$. |

**Extended Understanding:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | The area of the small sector is $20π ft^{2}.$ What is the radius of the circle? |  | The arc length of $\hat{DF}$ is 30 m. What is the area of the circle? |