Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

**13.3A NOTES – Areas of Circles and Semicirles**

*Objective: use inductive reasoning to understand the formula for the area of a circle*

CC.SS.7.G.4\_MP4 Model with Mathematics



Area of Circles formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Area of Semi-circle formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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*Use 3.14 for pi*

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| 1. Find the diameter of the circle.

TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_10.eps,11/5/2012 9:43:35 AM replaced: 7/31/2016 7:29:31 PM | 1. Find the radius of the circle.

TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_11.eps,11/5/2012 9:44:52 AM replaced: 7/31/2016 7:29:31 PM |
| 1. Find the area of the circle.

TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_10.eps,11/5/2012 9:43:35 AM replaced: 7/31/2016 7:29:31 PM | 1. Find the area of the circle.
2. TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_14.eps,11/5/2012 9:46:46 AM replaced: 7/31/2016 7:29:33 PM
 |
| 1. Find the area of the semicircle.

TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_15.eps,11/5/2012 9:47:23 AM replaced: 7/31/2016 7:29:33 PM | 1. Find the area of the semicircle.

TA: S:\mscc7wb03.01\Red Production\Red Record and Practice Journal\Art\08\mscc7_rpj_0801_16.eps,11/5/2012 9:47:57 AM replaced: 7/31/2016 7:29:33 PM |

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| **Problem 1:** An FM radio station signal travels in a 40-mile radius. An AM radio station signal travels in a 4-mile radius. How much more area does the FM station cover than the AM station? |

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| **Problem 2:** A dog is leashed to the corner of a house. How much running area does the dog have? Explain how you found your answer. (textbook: #17 pg 569) |

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| **Problem** **3**: Find the area of the shaded region. Explain how you found your answer. (textbook: #19 pg 569) | **Problem 4:** Find the area of the shaded region. Explain how you found your answer. (textbook: #20 pg 569)  |

**WARM-UP**

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| Use order of operations and complete the following problems

|  |  |
| --- | --- |
| 1. $3(1+8)^{2}$
 | 1. $2(3+7)^{2}-3∙4$
 |

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