## Unit 3 Lesson 9: Applying Area of Circles

### 1 Still Irrigating the Field (Warm up)

#### Student Task Statement

The area of this field is about 500,000 m2. What is the field’s area to the nearest square meter? Assume that the side lengths of the square are exactly 800 m.



* 502,400 m2
* 502,640 m2
* 502,655 m2
* 502,656 m2
* 502,857 m2

### 2 Comparing Areas Made of Circles

#### Student Task Statement

1. Each square has a side length of 12 units. Compare the areas of the shaded regions in the 3 figures. Which figure has the largest shaded region? Explain or show your reasoning.
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1. Each square in Figures D and E has a side length of 1 unit. Compare the area of the two figures. Which figure has more area? How much more? Explain or show your reasoning.
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#### Activity Synthesis



### 3 The Running Track Revisited (Optional)

#### Student Task Statement

The field inside a running track is made up of a rectangle 84.39 m long and 73 m wide, together with a half-circle at each end. The running lanes are 9.76 m wide all the way around.



What is the area of the running track that goes around the field? Explain or show your reasoning.



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