Algebra Unit 4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Embedded Assessment #4 Period\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Factoring Expressions: ROCK STAR DEMANDS**

Rockstar Platforms sets up outdoor stages for rock concerts. The musician Oscar requires a square stage at all of his concerts. Rockstar Platforms lays down a stage with an area of x2 + 10x + 25 square feet for him.

1. a. Draw a diagram to represent the area of the stage.

b. Write expressions to represent the side lengths of Oscar’s stage.

Oscar looks at the stage and says, “That’s too small!” So Rockstar Platforms goes back to the drawing board and designs another square stage with an area of 9x2 + 36x + 36 square feet.

2. What are the side lengths of Fuchsia’s new stage?

The company calls Oscar back out to look at the stage. “I guess it will do,” she says, “but I would have preferred a stage with an area of 9x2 + 45x + 36 square feet.” Rockstar Platforms’ foreman explains, “But then your demand for a square stage would not be met.”

3. Explain why Fuchsia’s demand for a square stage would not be met if the stage had an area of

9x2 + 45x + 36 square feet.

“Leave it like it is,” concedes Fuchsia. “Now, I need you to put up a video screen.” Fuchsia wants a large rectangular video screen set up behind her so her fans can see her from far away. Rockstar Platforms’ foreman has a plan for a video screen with an area of 3x2 + 19x + 28. “Boss, that’s not going to work,” his assistant cautions. “It’s going to be too long for the stage. “It’ll work,” the foreman insists.

4. Who is correct, the foreman or his assistant? Justify your response.

**FACTOR EACH POLYNOMIAL, IF POSSIBLE. IF THE POLYNOMIAL CANNOT BE FACTORED USING INTEGERS, WRITE *prime***. (Hint: only ONE is prime)

(01)  (02) 

(03)  (04) 

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