**Assigned: Thursday 3/29 MUST SHOW WORK FOR CREDIT**

**UNIT 1: RELATIONSHIPS BETWEEN QUANTITIES Review Homework Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Question** | **Answer** |
| **Use Properties of Rational and Irrational Numbers** |  |
| 1**. Look at the radical.**  **Which of these is equivalent to this expression?**  **A**.  **B**. -90.75  **C**. -986  **D**. |  |
| 2. **Look at the expression**.  **A**.  **B**. 5  **C**.  **D**. |  |
| 3. **Which sum is rational?**  **A.**  **B.**  **C**.  **D.** |  |
| 4. **Which product is irrational?**  **A.**  **B.**  **C.**  **D.** |  |
| Reason Quantitatively and Use Units to Solve Problems |  |
| 5. **Convert 309 yards to feet.** |  |
| 6. **Convert 45 miles per hour to feet per minute.** |  |
| 7. **When Justin goes to work, he drives at an average speed of 65 miles per hour. It takes about 1 hour and 30 minutes for Justin to arrive at work. His car travels about 25 miles per gallon of gas. If gas costs $3.65 per gallon, how much money does Justin spend on gas to travel to work?** |  |
| 8. **The formula for density *d* is , , where *m* is mass and *v* is volume. If mass is measured in kilograms and volume is measured in cubic meters, what is the unit for density?** |  |
| 9. **A rectangle has a length of 12 meters and a width of 400 centimeters**. **What is the perimeter, in cm, of the rectangle?**  **A.**  824 cm  **B.** 1,600 cm  **C.** 2,000 cm  **D.** 3,200 cm |  |
| 10. **Jill swam 200 meters in 2 minutes 42 seconds**. **If each lap is 50 meters long, which is MOST LIKELY to be her time, in seconds, per lap?**  **A.** 32 seconds **B.** 40 seconds  **C.** 48 seconds **D.** 60 seconds |  |
| Interpret the Structure of Expressions |  |
| 11. **Consider the expression .**  **a. What is the coefficient of *n*?**  **b. What terms are being added in the expression?** |  |
| 12. **Look at one of the formulas for the perimeter of a rectangle where *l* represents the length and *w* represents the width. 2(*l* + *w*)**  **What does the 2 represent in this formula?** |  |
| 13. **In which expression is the coefficient of term “n” – 1?**  **A.** 3n2 + 4n – 1  **B.** –n2 + 5n + 4  **C.** –2n2 – n + 5  **D**. 4n2 + n – 5 |  |
| 14. **The expression s2 is used to calculate the area of a square, where s is the side length of the square. What does the expression (8x)2 represent?**  **A**. the area of a square with a side length of 8  **B**. the area of a square with a side length of 16  **C**. the area of a square with a side length of 4x  **D**. the area of a square with a side length of 8x |  |
| **Perform Arithmetic Operations on Polynomials** |  |
| 15. **aThe dimensions of a rectangle are shown. What is the perimeter, in units, of the rectangle?**  nd Use Units to Solve Problems |  |
| 16. **Rewrite the expression (x3 + 2x2 – x) – (–x3 + 2x2 + 6).** |  |
| 17. **The dimensions of a patio, in feet, are shown below. What is the area of the patio, in square feet?** |  |
| 18. **What is the product of 7*x* – 4 and 8*x* + 5 ?**  **A.** 15*x* + 1  **B.** 30*x* + 2  **C.** 56*x*2 + 3*x* – 20  **D.** 56*x*2 – 3*x* + 20 |  |
| 19. **A model of a house is shown. What is the perimeter, in units, of the model?**    **A.** 32*x* + 12 units  **B.** 46*x* + 25 units  **C.** 50*x* + 11 units  **D.** 64*x* + 24 units |  |
| 20. **Which expression has the same value as the expression**  **(8*x*2 + 2*x* – 6) – (5*x*2 – 3*x* + 2)?**  **A.** 3*x*2 – *x* – 4  **B.** 3*x*2 + 5*x* – 8  **C.** 13*x*2 – *x* – 8  **D.** 13*x*2 – 5*x* – 4 |  |