Name_____ Class _____ Date_____

8-1B **Practice** (continued) *Form G*

Inverse Variation

Each ordered pair is from an inverse variation. Find the constant of variation.

15. (10, 5)

17. (−13, 22)

20. (4.8, 2.9)

22. (4.75, 4)

Write the function that models each variation. Find z when $x = 6$ and $y = 4$.

23. z varies jointly with x and y. When $x = 7$ and $y = 2$, $z = 28$.

24. z varies directly with x and inversely with the cube of y. When $x = 8$ and $y = 2$, $z = 3$.

Each pair of values is from an inverse variation. Find the missing value.

25. (2, 4), (6, y)

27. (1.2, 4.5), (2.7, y)

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28. One load of gravel contains 240 ft^3 of gravel. The area A that the gravel will cover is inversely proportional to the depth d to which the gravel is spread.

a. Write a model for the relationship between the area and depth for one load of gravel.

b. A designer plans a playground with gravel 6 in. deep over the entire play area. If the play area is a rectangle 40 ft wide and 24 ft long, how many loads of gravel will be needed?