Name:

Algebra

Section 8.10

**State whether each equation defines an inverse variation or a direct variation. k is a nonzero constant**

1. y / x = k 2. y = k / x

3. p = k / z 4. xy = 25

5. d = 40t 6. m = 1 / d

7. c1 / d1 = c2 / d2 8. a1b1 = a2b2

9. ¼ = rt 10. m / n = 5 / 8

**Complete the ordered pairs so they satisfy the given inverse variation**

11. xy = 12 and (x, y) = (2, ?) (?, 4) (-6, ?)

12. mn = 60 and (m, n) = (10, ?) (?, 5) (-2, ?)

13. 144 = pq and (p, q) = (8, ?) (-3, ?) (?, 12)

14. xy = -1 and (x, y) = (-1, ?) (1/4, ?) (?, 2)

**Find the missing value**

15. m1 = 12, m2 = 9, d1 = 30, d2 = ?

16. m1 = ?, m2 = 60, d1 = 5, d2 = 9

17. x1 = 4, y1 = 54, x2 = 8, y2 = ?

18. x1 = 32, y1 = 9, x2 = ?, y2 = 12

19. x1 = ?, y1 = 19.5, x2 = 11.7, y2 = 10.5

20. x1 = 10, y1 = ?, x2 = 8, y2 = 1/4