LESSON 10-5 Variation Functions

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Joint Variation

Name in English

1. y varies jointly as x and z. If y=15 when x=9 and z=8, find y when x=16 and z=9.

2. If x varies jointly as y and z, and x = 100 when y = 20 and z = 10, find x when y = 60 and z = 30.

3. Given that z varies jointly with x and y, such that $z = \frac{1}{2}xy$, find x when y=1 and z=2.
   a) x=14
   b) x=1
   c) x=2
   d) x=12
   e) x=4

4. . If y varies directly as x and $y = 12$ when $x = 8$, find y when $x = 14$.

5. Suppose y varies jointly as x and z. Find y when $x = 9$ and $z = -3$, if $y = -50$ when z is 5 and x is -10.