



NAME _____

Module 16 Solving Rational Equations
Lesson 3 Solving Problems Using Inverse Variation

Set 1

1. Is this an inverse variation?

| x | y |
|----|----|
| 5 | 12 |
| 15 | 4 |
| 11 | 6 |

no _____

2. Does y vary inversely as x?

| x | y |
|----|----|
| 2 | 28 |
| -7 | -8 |
| 4 | 14 |

yes _____

3. Write an equation for the inverse variation.

| x | y |
|----|----|
| 2 | 28 |
| -7 | -8 |
| 4 | 14 |

xy = 56 _____

Set 2

1. The time needed to paint a fence varies inversely as the number of people painting. If three people paint the fence in 10 hours, how long would it take six people to paint the fence?

5 hrs _____

2. The frequency of a radio signal varies inversely as the signal's wavelength. A 1,200 kilohertz signal has a wavelength of 250 meters. What is the frequency of a signal with a wavelength of 400 meters?

750 kHz _____

3. For a constant voltage, the current through a circuit varies inversely as the resistance. The current is 18 amperes when the resistance is 12 ohms. What is the current when the resistance is 27 ohms?

8 amps _____

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