

# Study Guide

Inverse variation  
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## **Inverse Variation**

Variation equations are formulas that show how one quantity changes in relation to one or more other quantities. There are four types of variation: direct, inverse (or indirect), joint, and combined. This skill focuses on inverse variation.

Inverse (or indirect) variation formulas show that when one quantity increases, the other quantity decreases, and vice versa. For example, when the price of an item increases, the demand decreases. Indirect variation formulas are of the form  $y = k/x$ , where  $k$  is the constant of variation and needs to be determined.

**Example 1:** If  $p$  and  $q$  vary inversely and  $p = 10$  when  $q = 1.6$ , find  $p$  when

