

### Answer on Question #48920 – Math – Algebra

State sales tax  $y$  is directly proportional to retail price  $x$ . An item that sells for 186 dollars has a sales tax of 14.42 dollars. Find a mathematical model that gives the amount of sales tax  $y$  in terms of the retail price  $x$ . What is the sales tax on a 250 dollars purchase?

#### Solution

$$T = P * x$$

$$14.42 = 186P \rightarrow P = \frac{14.42}{186} = 0.0775 = 7.75\%$$

$$T = 0.0775 * x$$

$$T(250) = 250 * 0.0775 = \$19.38$$