

# Proportionality Wrap-UP

In the linear proportionality model,  $y = mx$  we say in words  $y$  is proportional to  $x$

In the squared proportionality model,  $y = mx^2$  we say in words  $y$  is proportional to  $x^2$

In the inverse proportionality model,  $y = m(1/x)$  we say in words  $y$  is proportional to  $1/x$

MODEL	When X is	Then Y is
$Y = mx$	doubled	
$Y = mx$	tripled	
$Y = mx^2$	doubled	
$Y = mx^2$	tripled	
$Y = m(1/x)$	doubled	
$Y = m(1/x)$	tripled	

Doubled means when  $x$  changes from 1 to 2 or from 5 to 10 or from 40 to 80 or from ...

Tripled means when  $x$  changes from 1 to 3 or from 5 to 15 or from 40 to 120 or from ...