

Fill in the Blanks

Inverse Proportion

General Statement	General Equation	Table of Values	Value of k	Specific Equation	When $x = 6$, $y = ?$	When $y = 10$, $x = ?$								
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>4</td> <td>8</td> </tr> <tr> <td>y</td> <td>48</td> <td>12</td> <td>6</td> </tr> </table>	x	1	4	8	y	48	12	6	$k = 48$	$y = \frac{48}{x}$	$y = \frac{48}{6} = 8$	$x = \frac{48}{10} = 4.8$
x	1	4	8											
y	48	12	6											
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>5</td> </tr> <tr> <td>y</td> <td>120</td> <td>60</td> <td>24</td> </tr> </table>	x	1	2	5	y	120	60	24	$k = 120$	$y = \frac{120}{x}$	$y = \frac{120}{6} = 20$	$x = \frac{120}{10} = 12$
x	1	2	5											
y	120	60	24											
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>5</td> <td>10</td> </tr> <tr> <td>y</td> <td>30</td> <td>6</td> <td>3</td> </tr> </table>	x	1	5	10	y	30	6	3	$k = 30$	$y = \frac{30}{x}$	$y = \frac{30}{6} = 5$	$x = \frac{30}{10} = 3$
x	1	5	10											
y	30	6	3											
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$	<table border="1"> <tr> <td>x</td> <td>5</td> <td>20</td> <td>100</td> </tr> <tr> <td>y</td> <td>120</td> <td>30</td> <td>6</td> </tr> </table>	x	5	20	100	y	120	30	6	$k = 600$	$y = \frac{600}{x}$	$y = \frac{600}{6} = 100$	$x = \frac{600}{10} = 60$
x	5	20	100											
y	120	30	6											
$y \propto \frac{1}{x^2}$	$y = \frac{k}{x^2}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>y</td> <td>360</td> <td>90</td> <td>40</td> </tr> </table>	x	1	2	3	y	360	90	40	$k = 360$	$y = \frac{360}{x^2}$	$y = \frac{360}{6^2} = 10$	$x = \sqrt{\frac{360}{10}} = 6$
x	1	2	3											
y	360	90	40											
$y \propto \frac{1}{x^2}$	$y = \frac{k}{x^2}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>10</td> </tr> <tr> <td>y</td> <td>300</td> <td>75</td> <td>3</td> </tr> </table>	x	1	2	10	y	300	75	3	$k = 300$	$y = \frac{300}{x^2}$	$y = \frac{300}{6^2} = \frac{25}{3}$	$x = \sqrt{30}$
x	1	2	10											
y	300	75	3											
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$	<table border="1"> <tr> <td>x</td> <td>1</td> <td>5</td> <td>10</td> </tr> <tr> <td>y</td> <td>20</td> <td>4</td> <td>2</td> </tr> </table>	x	1	5	10	y	20	4	2	$k = 20$	$y = \frac{20}{x}$	$y = \frac{20}{6} = \frac{10}{3}$	$x = \frac{20}{10} = 2$
x	1	5	10											
y	20	4	2											