

# Constant of Proportionality

Answer Key

Determine the constant of proportionality ( $k$ ) and write the proportional relationship between  $x$  and  $y$ .

1)

|     |    |    |    |    |
|-----|----|----|----|----|
| $x$ | 2  | 5  | 7  | 9  |
| $y$ | 16 | 40 | 56 | 72 |

$$k = 8, y = 8x$$

2)

|     |   |    |    |    |
|-----|---|----|----|----|
| $x$ | 5 | 10 | 15 | 20 |
| $y$ | 4 | 8  | 12 | 16 |

$$k = \frac{4}{5}, y = \frac{4}{5}x$$

3)

|     |    |    |    |    |
|-----|----|----|----|----|
| $x$ | 5  | 9  | 11 | 13 |
| $y$ | 10 | 18 | 22 | 26 |

$$k = 2, y = 2x$$

4)

|     |   |    |    |    |
|-----|---|----|----|----|
| $x$ | 1 | 3  | 4  | 5  |
| $y$ | 9 | 27 | 36 | 45 |

$$k = 9, y = 9x$$

5)

|     |    |    |    |    |
|-----|----|----|----|----|
| $x$ | 6  | 8  | 10 | 12 |
| $y$ | 18 | 24 | 30 | 36 |

$$k = 3, y = 3x$$

6)

|     |    |    |    |    |
|-----|----|----|----|----|
| $x$ | 2  | 5  | 6  | 8  |
| $y$ | 12 | 30 | 36 | 48 |

$$k = 6, y = 6x$$

7)

|     |   |    |    |    |
|-----|---|----|----|----|
| $x$ | 9 | 18 | 27 | 36 |
| $y$ | 7 | 14 | 21 | 28 |

$$k = \frac{7}{9}, y = \frac{7}{9}x$$

8)

|     |    |    |    |     |
|-----|----|----|----|-----|
| $x$ | 10 | 11 | 15 | 20  |
| $y$ | 50 | 55 | 75 | 100 |

$$k = 5, y = 5x$$