

## Multiply & Divide

### *Relating*

**Main Idea:** Multiplying and dividing are often related. Sometimes in math we can solve a problem by trying an opposite approach.

#### Example A

$$2 \times d = 16 \quad \text{Think: what's the opposite?}$$

$$d = 16 \div 2$$

$$d = 8$$

#### Example B

$$p \div 8 = 5 \quad \text{Think: what's the opposite?}$$

$$p = 5 \times 8$$

$$p = 40$$

#### Where are we going?

*Using the opposite approach is useful in pre-algebra. Today, these problems are basic and suitable for mental math. In the future, they require more thinking and showing work.*

**Directions:** Use mental math and show work as needed. Remember: you guarantee the correct answer if no work is shown... and no calculators! Shade the box if the answer is odd.

**Sometimes building owners will skip numbering this floor: \_\_\_\_\_**

1) $5 = 35 \div k$	2) $h \div 3 = 24$	3) $5 \times b = 25$	4) $9 = m \times 3$
5) $27 = d \times 3$	6) $10 = 60 \div h$	7) $g \div 4 = 8$	8) $5 \times b = 75$
9) $7 \times r = 63$	10) $y \div 8 = 20$	11) $5 = 60 \div k$	12) $12 = m \times 4$
13) $45 = w \times 3$	14) $11 = 88 \div r$	15) $h \div 2 = 48$	16) $8 \times b = 56$
17) $9 \times b = 81$	18) $a \div 6 = 12$	19) $200 = 800 \div k$	20) $39 = m \times 3$
21) $12 \times d = 36$	22) $h \div 4 = 200$	23) $100 = g \times 4$	24) $7 \times b = 217$
25) $30 = m \times 6$	26) $7 = 84 \div k$	27) $v \div 8 = 12$	28) $3 \times b = 99$
29) $9 \times b = 99$	30) $y \div 12 = 12$	31) $6 = 120 \div k$	32) $48 = m \times 16$
33) $3 \times k = 75$	34) $h \div 3 = 30$	35) $7 \times b = 567$	36) $63 = d \times 3$

**Fun Facts:** You have triksideskaphobia if you fear this number. In Italy, this number is considered very lucky.

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**Main Idea:** Multiplying and dividing are often related. Sometimes in math we can solve a problem by trying an opposite approach.

### Example A

$$\begin{aligned} 2 \times d &= 16 & \text{Think: what's the opposite?} \\ d &= 16 \div 2 \\ d &= \textcircled{8} \end{aligned}$$

### Example B

$$\begin{aligned} p \div 8 &= 5 & \text{Think: what's the opposite?} \\ p &= 5 \times 8 \\ p &= \textcircled{40} \end{aligned}$$

### Where are we going?

Using the opposite approach is useful in pre-algebra. Today, these problems are basic and suitable for mental math. In the future, they require more thinking and showing work.

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Sometimes building owners will skip numbering this floor: 13

1) $5 = 35 \div k$ <b>7</b>	2) $h \div 3 = 24$ <b>72</b>	3) $5 \times b = 25$ <b>5</b>	4) $9 = m \times 3$ <b>3</b>
5) $27 = d \times 3$ <b>9</b>	6) $10 = 60 \div h$ <b>6</b>	7) $g \div 4 = 8$ <b>32</b>	8) $5 \times b = 75$ <b>15</b>
9) $7 \times r = 63$ <b>9</b>	10) $y \div 8 = 20$ <b>160</b>	11) $5 = 60 \div k$ <b>12</b>	12) $12 = m \times 4$ <b>3</b>
13) $45 = w \times 3$ <b>15</b>	14) $11 = 88 \div r$ <b>8</b>	15) $h \div 2 = 48$ <b>96</b>	16) $8 \times b = 56$ <b>7</b>
17) $9 \times b = 81$ <b>9</b>	18) $a \div 6 = 12$ <b>72</b>	19) $200 = 800 \div k$ <b>4</b>	20) $39 = m \times 3$ <b>13</b>
21) $12 \times d = 36$ <b>3</b>	22) $h \div 4 = 200$ <b>800</b>	23) $100 = g \times 4$ <b>25</b>	24) $7 \times b = 217$ <b>31</b>
25) $30 = m \times 6$ <b>5</b>	26) $7 = 84 \div k$ <b>12</b>	27) $v \div 8 = 12$ <b>96</b>	28) $3 \times b = 99$ <b>33</b>
29) $9 \times b = 99$ <b>11</b>	30) $y \div 12 = 12$ <b>144</b>	31) $6 = 120 \div k$ <b>20</b>	32) $48 = m \times 16$ <b>3</b>
33) $3 \times k = 75$ <b>25</b>	34) $h \div 3 = 30$ <b>90</b>	35) $7 \times b = 567$ <b>81</b>	36) $63 = d \times 3$ <b>21</b>

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