

## Multiples, factors, multiplication and division

1. Write ALL the factors of 24.
2. If a number has 10 as a factor, what other three other factors must it have?
3. If a number has 6 as a factor, what other three factors must it have?
4. Write two common multiples of 4 and 5.
5. Write three common multiples of 2, 3 and 5.
6.  $2 \times 6 \times 5$
7.  $15 \times 3 \times 2$
8.  $4 \times 5 \times \square = 120$
9.  $7 \times \square \times 5 = 350$
10.  $720 \times 4$
11.  $\square \times 80 = 480$
12.  $450 \div 90$
13.  $7 \times \square = 3500$
14.  $8 \times 23$
15.  $5 \times 348$
16.  $25 \times 36$
17.  $186 \div 5$
18.  $284 \div 20$

## Long multiplication

Working out for  $24 \times 2153$

$$\begin{array}{r} 2153 \\ \times 24 \\ \hline 431060 \\ 86212 \\ \hline 1293172 \end{array}$$

## Multiplication practice

1.  $6 \times 378$
2.  $453 \times 7$
3.  $3 \times 7237$
4.  $3284 \times 4$
5. There are 678 people in the cinema. They each paid £7 for their ticket. How much did they pay altogether?
6. 2364 people go to watch a hockey match. They each pay £8 for their ticket. How much did they pay altogether?
7. Work out the perimeter of a regular hexagon where each side measures 23.4 centimetres. Write your answer in metres.
8. Find the total cost of seven hot chocolates costing £2.79 each.
9.  $13 \times 364$
10.  $724 \times 16$
11.  $22 \times 472$
12.  $783 \times 23$
13. Find the area of a poster measuring 123cm by 31cm.
14.  $15 \times 4312$
15.  $3752 \times 16$
16.  $23 \times 2138$
17.  $8732 \times 25$
18. How many hours are in two years?

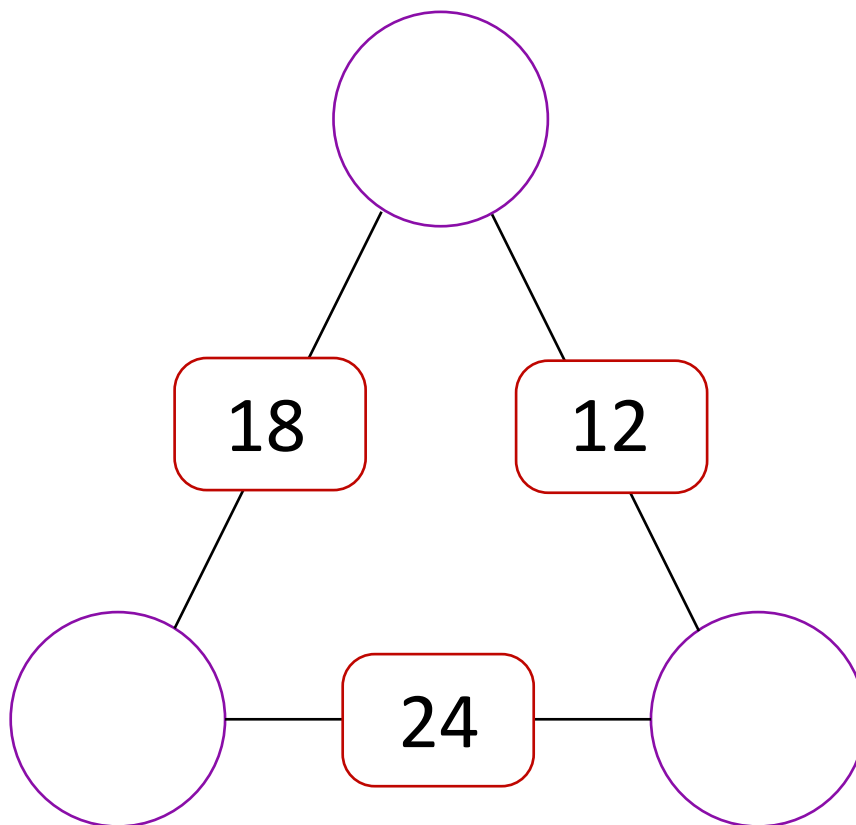
## Multiplication practice

1.  $6 \times 378$
2.  $453 \times 7$
3.  $5 \times 845$
4.  $967 \times 8$
5.  $3 \times 7237$
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7. There are 678 people in the cinema. They each paid £7 for their ticket. How much did they pay altogether?
8. 2364 people go to watch a hockey match. They each pay £8 for their ticket. How much did they pay altogether?
9.  $13 \times 364$
10.  $22 \times 472$
11.  $783 \times 23$
12. Find the area of a poster measuring 123cm by 31cm.

## Long division

1. Divide these numbers by 13: 339, 315, 453. Write the answers with remainders.
2. Divide these numbers by 16: 568, 388, 444. Write your answers as decimals.
3. Write a division which has half the answer to  $756 \div 18$ .
4. Divide these numbers by 25: 970, 3550, 2890. Write the remainders as fractions.
5. How many bananas costing 24p each could you buy with £6.50?
6. How many 18cm pieces of wire can be cut from a roll of 5 metres?

# Multiplication arithmagon



## Solving number puzzles

1. Vikesh has chosen two numbers. He divides the total by 2 and gets the answer 18. One of the numbers he chose was 15. What was the other number?

2. Katya chooses two numbers. They have a product of 36 and a difference of 5. What numbers did she choose?

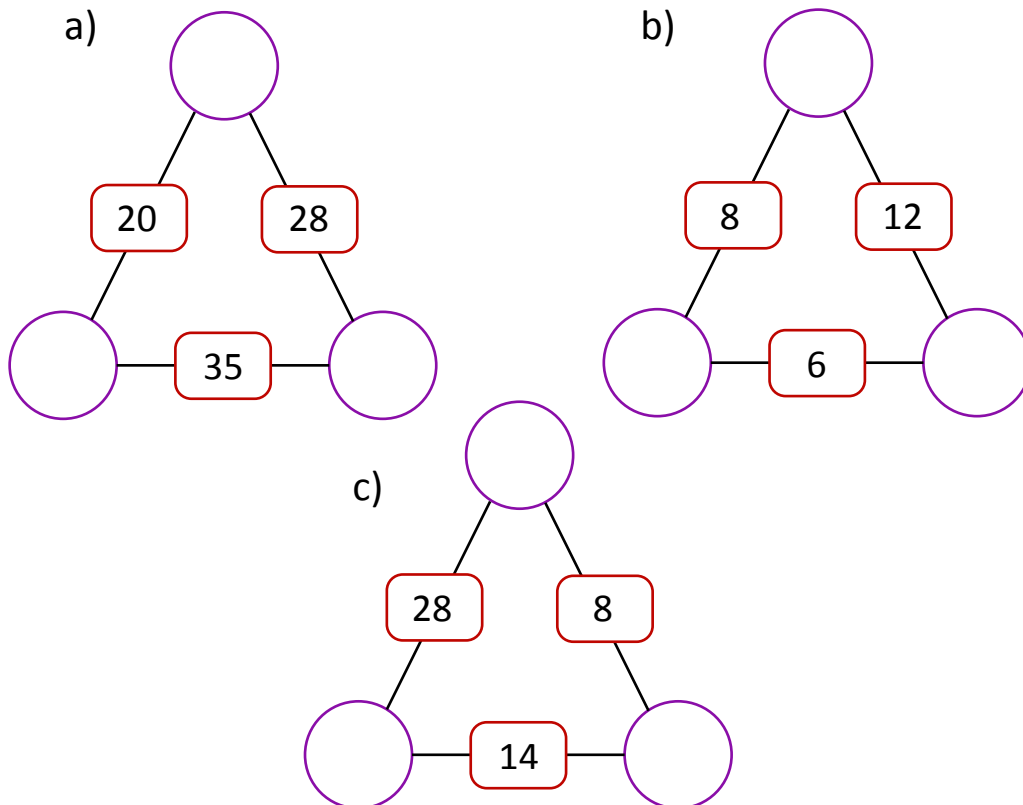
3. Lauren thinks of three consecutive numbers. They have a product of 120. What are they?

$$\square \times \square \times \square = 120$$

4. Jordan thinks of two consecutive numbers. He halves the product. He gets an answer of 21. What were his numbers?

5. Seth thinks of two even single-digit numbers. He doubles the product. He gets an answer of 48. What numbers did he choose?

6. Work out the missing numbers in these multiplication arithmagons.



## Solving number puzzles

7. Work out the missing numbers in these addition grids.

a)

<b>+</b>	<b>27</b>		<b>48</b>
<b>20</b>	47	55	68
<b>41</b>		76	
	46		67

b)

<b>+</b>		<b>17</b>	
<b>68</b>	103	85	
		50	84
	82	64	



## Maths Answers - Summer Year 6

Week 2:

### Multiples, factors, multiplication and division (page 1)

Y6 Sum Week 2 Day 1

1. Write ALL the factors of 24.

**1, 2, 3, 4, 6, 8, 12, 24.**

2. If a number has 10 as a factor, what other three other factors must it have?

**1, 2, 5.**

3. If a number has 6 as a factor, what other three factors must it have?

**1, 2, 3.**

4. Write two common multiples of 4 and 5.

**20, 40.**

5. Write three common multiples of 2, 3 and 5.

**30, 60, 90.**

6.

$$2 \times 6 \times 5 = \mathbf{60}$$

7.

$$15 \times 3 \times 2 = \mathbf{90}$$

8.

$$4 \times 5 \times \mathbf{6} = 120$$

9.

$$7 \times \mathbf{10} \times 5 = 350$$

10.

$$720 \times 4 = \mathbf{2,880}$$

11.

$$\mathbf{6} \times 80 = 480$$

12.

$$450 \div 90 = \mathbf{5}$$

13.

$$7 \times \mathbf{500} = 3500$$

14.

$$8 \times 23 = \mathbf{184}$$

15.

$$5 \times 348 = \mathbf{1,740}$$

16.

$$25 \times 36 = \mathbf{900}$$

17.

$$186 \div 5 = \mathbf{37.2}$$

18.

$$284 \div 20 = \mathbf{14.2}$$

### Multiplication practice (MH)

1.

$$6 \times 378 = \mathbf{2,268}$$

2.

$$453 \times 7 = \mathbf{3,171}$$

3.

$$3 \times 7237 = \mathbf{21,711}$$

4.

$$3284 \times 4 = \mathbf{13,136}$$

5. There are 678 people in the cinema. They each paid £7 for their ticket. How much did they pay altogether?

$$678 \times £7 = \mathbf{£4746}$$

6. 2364 people go to watch a hockey match. They each pay £8 for their ticket. How much did they pay altogether?

$$2364 \times £8 = \mathbf{£18,912}$$

7. Work out the perimeter of a regular hexagon where each side measures 23.4 centimetres. Write your answer in metres.

$$6 \times 23.4 \text{ cm} = 140.4 \text{ centimetres}$$

$$140.4 \text{ centimetres} = \mathbf{1.404 \text{ metres}}$$

8. Find the total cost of seven hot chocolates costing £2.79 each.

$$7 \times £2.79 = \mathbf{£19.53}$$

9.

$$13 \times 364 = \mathbf{4,732}$$

10.

$$724 \times 16 = \mathbf{11,584}$$

11.

$$22 \times 472 = \mathbf{10,384}$$

12.

$$783 \times 23 = \mathbf{18,009}$$

13. Find the area of a poster measuring 123cm by 31cm.

$$123\text{cm} \times 31\text{cm} = \mathbf{3,813 \text{ cm}^2}$$

14.

$$15 \times 4312 = \mathbf{64,680}$$

15.

$$3752 \times 16 = \mathbf{60,032}$$

16.

$$23 \times 2138 = \mathbf{49,174}$$

17.

$$8732 \times 25 = \mathbf{218,300}$$

18. How many hours are in two years?

$$365 \text{ days} \times 2 = 730 \text{ days}$$

$$\text{One day} = 24 \text{ hours}$$

$$730 \times 24 = \mathbf{17,520 \text{ hours}}$$

### Multiplication practice (E)

1.

$$6 \times 378 = \mathbf{2,268}$$

2.

$$453 \times 7 = \mathbf{3,171}$$

3.

$$5 \times 845 = \mathbf{4,225}$$

4.

$$967 \times 8 = \mathbf{7,736}$$

5.

$$3 \times 7237 = \mathbf{21,711}$$

6.

$$3284 \times 4 = \mathbf{13,136}$$

7. There are 678 people in the cinema. They each paid £7 for their ticket. How much did they pay altogether?

$$678 \times \text{£}7 = \mathbf{\text{£}4746}$$

8. 2364 people go to watch a hockey match. They each pay £8 for their ticket. How much did they pay altogether?

$$2364 \times \text{£}8 = \mathbf{\text{£}18,912}$$

9.

$$13 \times 364 = \mathbf{4,732}$$

10.

$$22 \times 472 = \mathbf{10,384}$$

11.

$$783 \times 23 = \mathbf{18,009}$$

12. Find the area of a poster measuring 123cm by 31cm.

$$123\text{cm} \times 31\text{cm} = \mathbf{3,813 \text{ cm}^2}$$

### Long Division (MH)

1. Divide these numbers by 13: 339, 315, 453. Write the answers with remainders.

$$339 \div 13 = \mathbf{26 \text{ remainder } 1}$$

$$315 \div 13 = \mathbf{24 \text{ remainder } 3}$$

$$453 \div 13 = \mathbf{34 \text{ remainder } 11}$$

2. Divide these numbers by 16: 568, 388, 444. Write your answers as decimals.

$$568 \div 16 = \mathbf{35.5}$$

$$388 \div 16 = \mathbf{24.25}$$

$$444 \div 16 = \mathbf{27.75}$$

3. Write a division which has half the answer to  $756 \div 18$ .

$$756 \div 18 = 42$$

$$\mathbf{42 \div 2 = 21}$$

4. Divide these numbers by 25: 970, 3550, 2890. Write the remainders as fractions.

$$970 \div 25 = \mathbf{38 \frac{4}{5}}$$

$$3550 \div 25 = \mathbf{142}$$

$$2890 \div 25 = \mathbf{115 \frac{3}{5}}$$

5. How many bananas costing 24p each could you buy with £6.50?

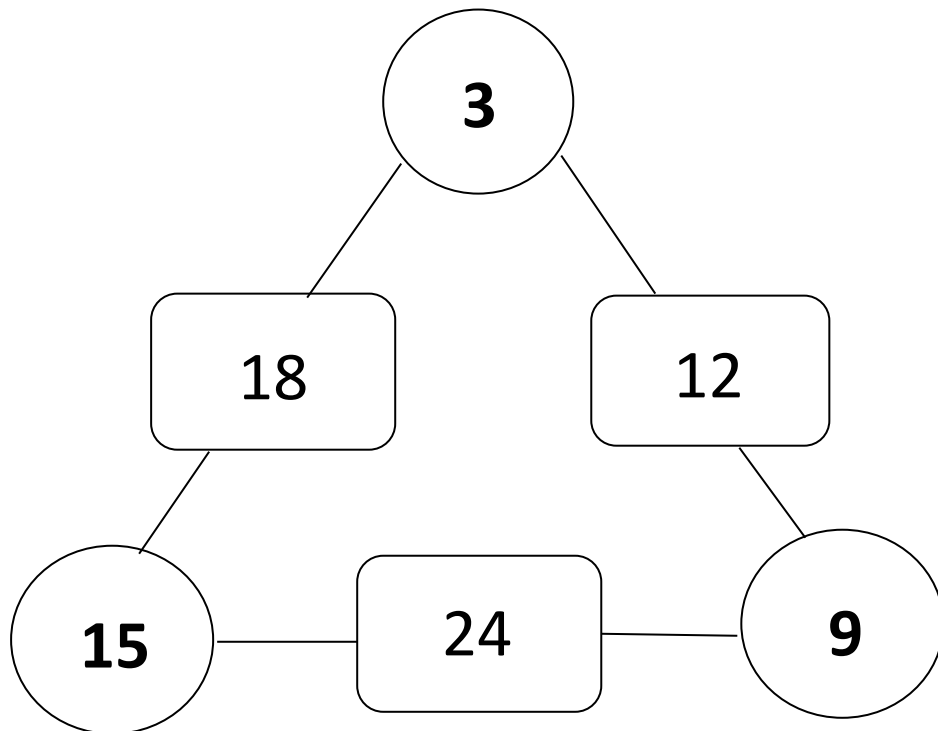
$$\mathbf{£6.50 \div £0.24 = 27 \text{ (remainder 2p)}}$$

6. How many 18cm pieces of wire can be cut from a roll of 5 metres?

$$5 \text{ metres} = 500 \text{ cm}$$

$$500 \div 18 = \mathbf{27 \text{ (remainder 14 cm)}}$$

## Multiplication arithmagon



## Solving number puzzles

1. Vikesh has chosen two numbers. He divides the total by 2 and gets the answer 18. One of the numbers he chose was 15. What was the other number?

$$15 + 21 \div 2 = 18$$

**21.**

2. Katya chooses two numbers. They have a product of 36 and a difference of 5. What numbers did she choose?

$$4 \times 9 = 36$$

**4 and 9**

3. Lauren thinks of three consecutive numbers. They have a product of 120. What are they?  $o \times o \times o = 120$

$$4 \times 5 \times 6 = 120$$

**4, 5 and 6**

4. Jordan thinks of two consecutive numbers. He halves the product. He gets an answer of 21. What were his numbers?

$$6 \times 7 \div 2 = 21$$

**6 and 7**

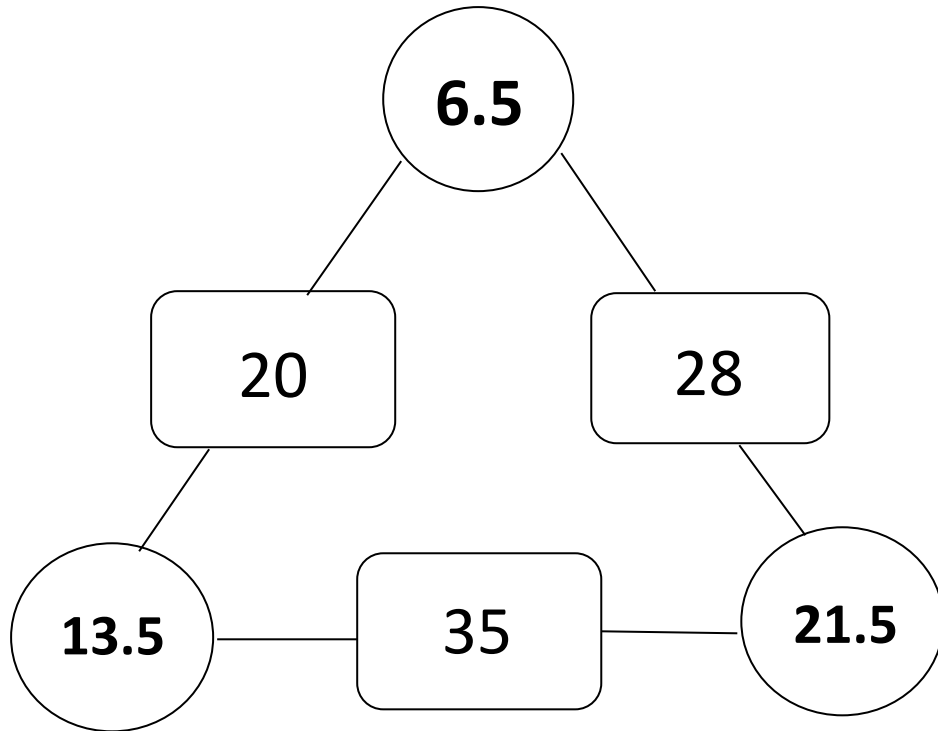
5. Seth thinks of two even single-digit numbers. He doubles the product. He gets an answer of 48. What numbers did he choose?

$$4 \times 6 \times 2 = 48$$

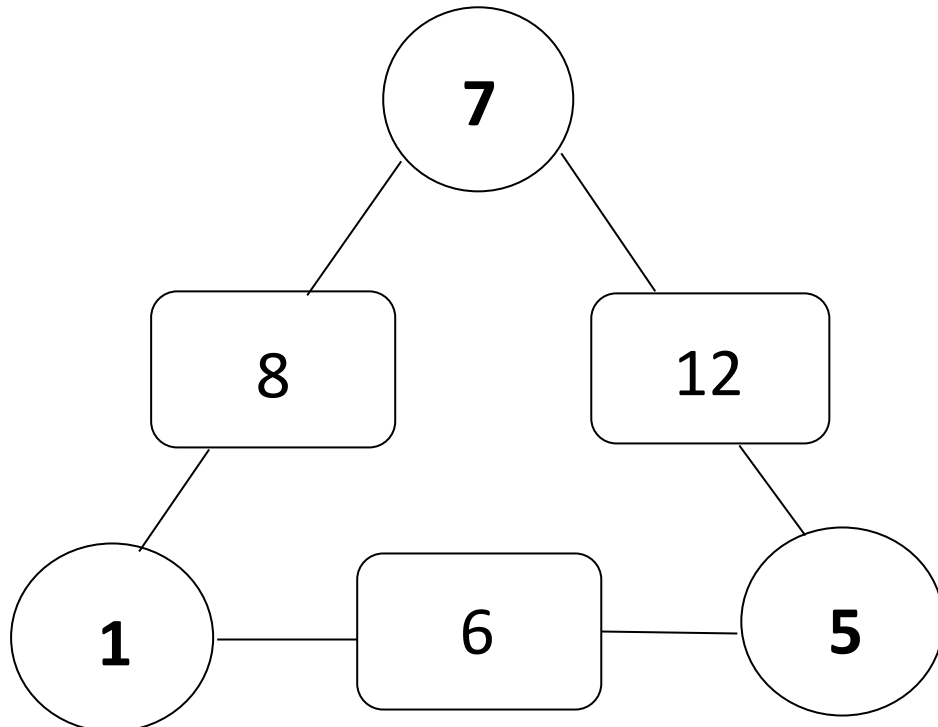
**4 and 6**

6. Work out the missing numbers in these multiplication arithmagons.

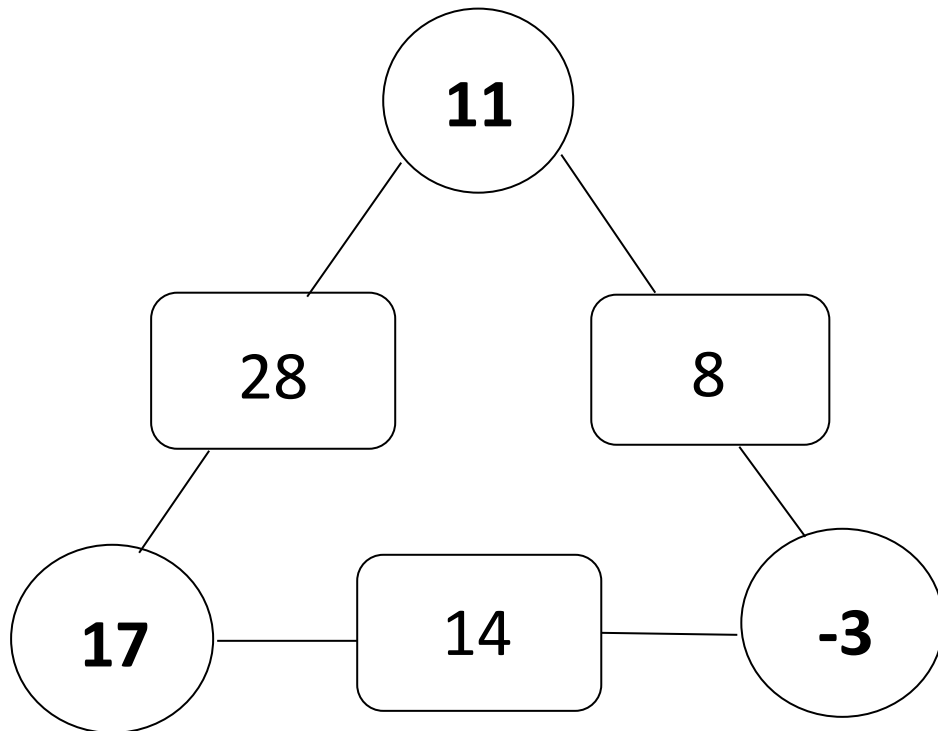
a)



b)



c)



Solving number puzzles

7. Work out the missing numbers in these addition grids.

a)

+	27	35	48
20	47	55	68
41	68	76	89
19	46	54	67

b)

+	35	17	51
68	103	85	119
33	68	50	84
47	82	64	98

## Maths Answers - Summer Year 6

Week 3:

### Multiplying and dividing decimals by whole numbers

1.

$$8 \times 0.7 = \mathbf{5.6}$$

2.

$$0.6 \times 9 = \mathbf{5.4}$$

3.

$$4 \times 0.8 = \mathbf{3.2}$$

4.

$$0.6 \times 5 = \mathbf{3.0}$$

5.

$$7 \times \mathbf{0.4} = 2.8$$

6.

$$\mathbf{0.8} \times 3 = 2.4$$

7.

$$8 \times 0.04 = \mathbf{0.32}$$

8.

$$0.03 \times 3 = \mathbf{0.09}$$

9.

$$7 \times 0.04 = \mathbf{0.28}$$

10.

$$0.08 \times \mathbf{4} = 0.32$$

11.

$$0.48 \div 6 = \mathbf{0.08}$$

12.

$$0.81 \div 9 = \mathbf{0.09}$$

13.

$$0.45 \div \mathbf{5} = 0.09$$

14.

$$\mathbf{7} \times 0.5 = 3.5$$

15.

$$7.2 \div 6 = \mathbf{1.2}$$