

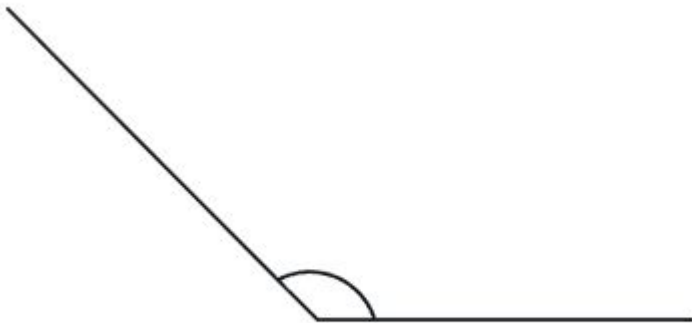
Year 3 Week 10 Lesson 4

Can I divide a 2D number by a 1D number?

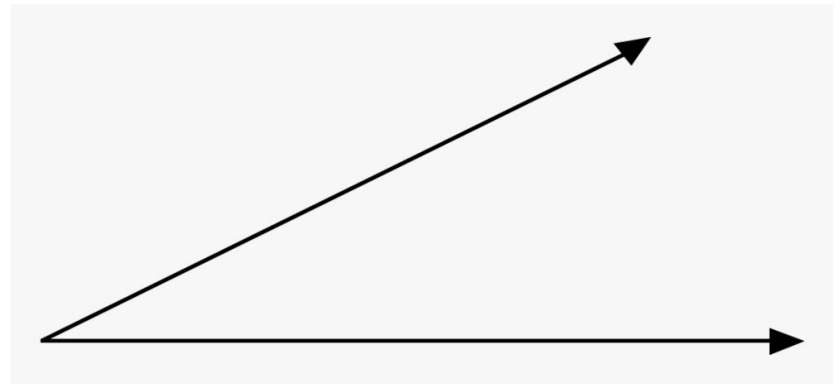
Fast Five

1. $17 \times 100 =$
2. $400 + ?? + 9 = 439$
3. $89 - 76 =$
4. Which is bigger $\frac{1}{4}$ *or* $\frac{1}{3}$?
5. Which angle is bigger?

a)

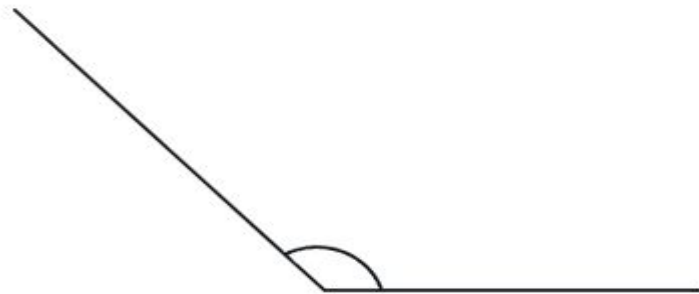


b)



Fast Five Answers

1. $17 \times 100 = 1700$
2. $400 + 30 + 9 = 439$
3. $89 - 76 = 13$
4. $\frac{1}{3}$
5. Which angle is bigger?
a) Obtuse angle



$$10 + 4 = 14$$

$$4 + 10 = 14$$

$$14 - 10 = 4$$

$$14 - 4 = 10$$

The number sentence has three other number sentences you can make from it using the same three numbers.

Introduction

Just like with addition and subtraction, multiplication and division facts are connected.

Subtraction is the opposite (or inverse) of addition and multiplication is the opposite (or inverse) of division.

If I have 3 tins and multiply them by 4, I will get 12 tins.



But if I divide my 12 tins by 4, I will have 3 again.

$$12 \div 4 = 3$$



Because division is the inverse of multiplication we can use our times table facts to help us.

Write out these tables or refer back to this slide to help.

| 2 times table | |
|---------------|----|
| 1 | 2 |
| 2 | 4 |
| 3 | 6 |
| 4 | 8 |
| 5 | 10 |
| 6 | 12 |
| 7 | 14 |
| 8 | 16 |
| 9 | 18 |
| 10 | 20 |
| 11 | 22 |
| 12 | 24 |

| 3 times table | |
|---------------|----|
| 1 | 3 |
| 2 | 6 |
| 3 | 9 |
| 4 | 12 |
| 5 | 15 |
| 6 | 18 |
| 7 | 21 |
| 8 | 24 |
| 9 | 27 |
| 10 | 30 |
| 11 | 33 |
| 12 | 36 |

| 4 times table | |
|---------------|----|
| 1 | 4 |
| 2 | 8 |
| 3 | 12 |
| 4 | 16 |
| 5 | 20 |
| 6 | 24 |
| 7 | 28 |
| 8 | 32 |
| 9 | 36 |
| 10 | 40 |
| 11 | 44 |
| 12 | 48 |

| 5 times table | |
|---------------|----|
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 6 | 30 |
| 7 | 35 |
| 8 | 40 |
| 9 | 45 |
| 10 | 50 |
| 11 | 55 |
| 12 | 60 |

| 8 times table | |
|---------------|----|
| 1 | 8 |
| 2 | 16 |
| 3 | 24 |
| 4 | 32 |
| 5 | 40 |
| 6 | 48 |
| 7 | 56 |
| 8 | 64 |
| 9 | 72 |
| 10 | 80 |
| 11 | 88 |
| 12 | 96 |

Let's use our times table facts to solve this question:

| 2 times table | |
|---------------|----|
| 1 | 2 |
| 2 | 4 |
| 3 | 6 |
| 4 | 8 |
| 5 | 10 |
| 6 | 12 |
| 7 | 14 |
| 8 | 16 |
| 9 | 18 |
| 10 | 20 |
| 11 | 22 |
| 12 | 24 |

$$16 \div 2$$

The biggest multiple of 2 without going over 16 **is 16**.

Therefore the answer is just **8** as there isn't a remainder.

$$16 \div 2 = 8$$

| 4 times table | |
|---------------|----|
| 1 | 4 |
| 2 | 8 |
| 3 | 12 |
| 4 | 16 |
| 5 | 20 |
| 6 | 24 |
| 7 | 28 |
| 8 | 32 |
| 9 | 36 |
| 10 | 40 |
| 11 | 44 |
| 12 | 48 |

$$16 \div 4$$

The biggest multiple of 4 without going over 16 is **16**.

Therefore our answer is just **4** as there isn't a remainder.

$$16 \div 4 = 4$$

3 times table

| | |
|----|----|
| 1 | 3 |
| 2 | 6 |
| 3 | 9 |
| 4 | 12 |
| 5 | 15 |
| 6 | 18 |
| 7 | 21 |
| 8 | 24 |
| 9 | 27 |
| 10 | 30 |
| 11 | 33 |
| 12 | 36 |

$$15 \div 3$$

The biggest multiple of 3 without going over 15 is **15**. Therefore our answer is **5** as there isn't a remainder.

$$15 \div 3 = 5$$

5 times table

| | |
|----|----|
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 6 | 30 |
| 7 | 35 |
| 8 | 40 |
| 9 | 45 |
| 10 | 50 |
| 11 | 55 |
| 12 | 60 |

$$45 \div 5 =$$

Use the skeleton table to help.

5 times table

| | |
|----|----|
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 6 | 30 |
| 7 | 35 |
| 8 | 40 |
| 9 | 45 |
| 10 | 50 |
| 11 | 55 |
| 12 | 60 |

$$45 \div 5 = 9$$

$$31 \div 5 =$$

The biggest multiple of 5 without going over 31 **is 30**. $6 \times 5 = 30$

But there is a remainder.

$$31 - 30 = 1$$

There is 1 left over.

So our answer is

$$31 \div 5 = 6 \text{ r}1 \text{ (remainder 1)}$$

| 5 times table | |
|---------------|----|
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 6 | 30 |
| 7 | 35 |
| 8 | 40 |
| 9 | 45 |
| 10 | 50 |
| 11 | 55 |
| 12 | 60 |

4 times table

1 4

2 8

3 12

4 16

5 20

6 24

7 28

8 32

9 36

10 40

11 44

12 48

$$31 \div 4 =$$

The biggest multiple of 4 without going over 31 is **28**. $7 \times 4 = 28$

But there are remainders.

$$31 - 28 = 3$$

There are 3 left over.

So our answer is

$$31 \div 4 = 7 \text{ r}3 \text{ (remainder 3)}$$

2 times table

| | |
|----|----|
| 1 | 2 |
| 2 | 4 |
| 3 | 6 |
| 4 | 8 |
| 5 | 10 |
| 6 | 12 |
| 7 | 14 |
| 8 | 16 |
| 9 | 18 |
| 10 | 20 |
| 11 | 22 |
| 12 | 24 |

Try this:

$$17 \div 2 =$$

2 times table

| | |
|----|----|
| 1 | 2 |
| 2 | 4 |
| 3 | 6 |
| 4 | 8 |
| 5 | 10 |
| 6 | 12 |
| 7 | 14 |
| 8 | 16 |
| 9 | 18 |
| 10 | 20 |
| 11 | 22 |
| 12 | 24 |

Try this:

$$17 \div 2 =$$

The biggest multiple of 2 without going over 17 is **16**. $8 \times 2 = 16$

But there is a remainder.

$$17 - 16 = 1$$

There is 1 left over.

So our answer is

$$17 \div 2 = 8 \text{ r}1 \text{ (remainder 1)}$$

8 times table

| | |
|----|----|
| 1 | 8 |
| 2 | 16 |
| 3 | 24 |
| 4 | 32 |
| 5 | 40 |
| 6 | 48 |
| 7 | 56 |
| 8 | 64 |
| 9 | 72 |
| 10 | 80 |
| 11 | 88 |
| 12 | 96 |

Try this:

$$50 \div 8 =$$

8 times table

| | |
|----|----|
| 1 | 8 |
| 2 | 16 |
| 3 | 24 |
| 4 | 32 |
| 5 | 40 |
| 6 | 48 |
| 7 | 56 |
| 8 | 64 |
| 9 | 72 |
| 10 | 80 |
| 11 | 88 |
| 12 | 96 |

Try this $50 \div 8 =$

$$6 \times 8 = 48$$

$$50 - 48 = 2$$

So

$$50 \div 8 = 6 \text{ r } 2$$