

Year 5 Week 10 Lesson 4

Can I divide using the bus stop method?

Fast Five

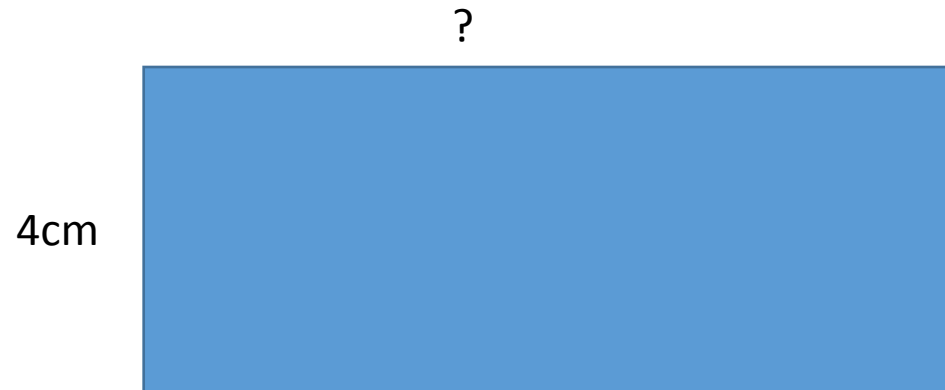
1. $1234 + 7648 =$

2. $120 \times 20 =$

3. $45 \times 23 =$

4. $7649 - 4563 =$

5. The area is 36cm^2 . What is the length of the missing side?



Fast Five - Answers

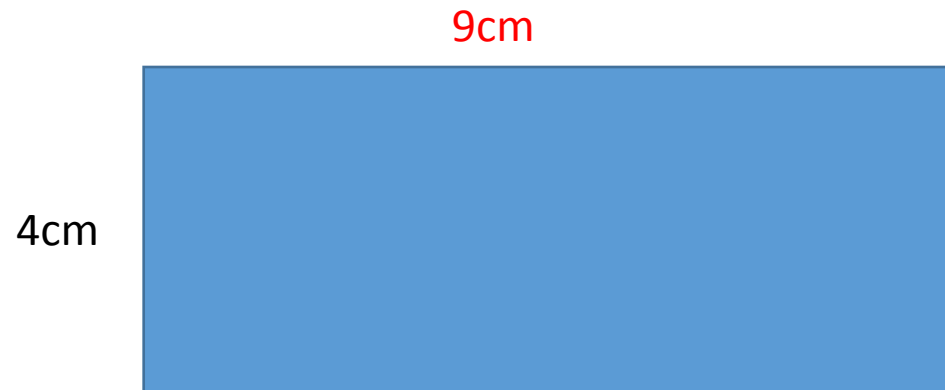
1. $1234 + 7648 = 8882$

2. $120 \times 20 = 2400$

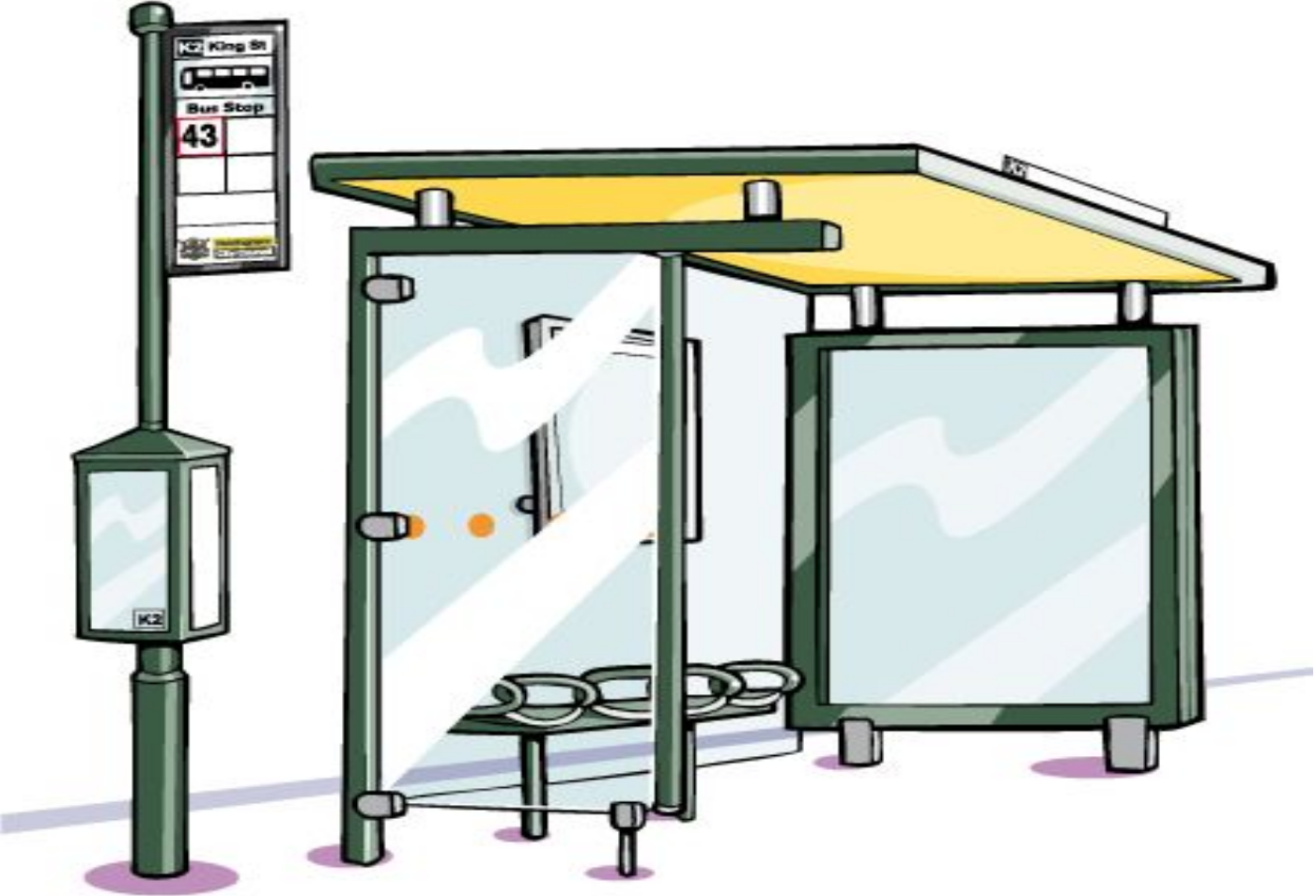
3. $45 \times 23 = 1035$

4. $7649 - 4563 = 3086$

5. The area is 36cm^2 . What is the length of the missing side?



The bus stop method



We have a calculation $69 \div 3$

The way we write this down is as follows:

$$3 \overline{) 69}$$

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$$\begin{array}{r} 3 \overline{) 69} \end{array}$$

We see how many times the number on the outside (3) will go into each of the digits on the inside (69).

We have a calculation $69 \div 3$

The way we write this down is as follows:

$$\begin{array}{r} 2 \\ \hline 3 \overline{) 69} \end{array}$$

3 will go into 6, 2 times so we put the 2 above the line (keeping our columns in line).

We see how many times the number on the outside (3) will go into each of the digits on the inside (69).

We have a calculation $69 \div 3 = 23$

The way we write this down is as follows:

$$\begin{array}{r} 23 \\ 3 \overline{) 69} \end{array}$$

We see how many times the number on the outside (3) will go into each of the digits on the inside (69).

3 will go into 6, 2 times so we put the 2 above the line (keeping our columns in line).

3 will go into 9, 3 times so we put the 3 above the line (keeping our columns in line).

Have a go at this one:

$$48 \div 4 =$$

Answer on next slide

We have a calculation $48 \div 4 = 12$

The way we write this down is as follows:

$$\begin{array}{r} 12 \\ 4 \overline{) 48} \end{array}$$

We see how many times the number on the outside (4) will go into each of the digits on the inside (48).

4 will go into 4, 1 time so we put the 1 above the line (keeping our columns in line).

4 will go into 8, 2 times so we put the 2 above the line (keeping our columns in line).

We have a calculation $51 \div 3$

The way we write this down is as follows:

$$3 \overline{) 51}$$

We have a calculation $51 \div 3$

The way we write this down is as follows:

$$\begin{array}{r} 3 \overline{) 51} \end{array}$$

We see how many times the number on the outside (3) will go into each of the digits on the inside (51).

We have a calculation $51 \div 3$

The way we write this down is as follows:

$$\begin{array}{r} 1 \\ 3 \overline{) 51} \end{array}$$

We see how many times the number on the outside (3) will go into each of the digits on the inside (51).

3 goes into 5 once so we put the 1 above the line (keeping our columns in line). We have 2 tens left over. We add these to the next column. This is regrouping the 20 and adding it to the 1 to make 21.

$$51 \div 3 = 17$$

The way we write this down is as follows:

$$\begin{array}{r} 17 \\ 3 \overline{) 51} \end{array}$$

We see how many times the number on the outside (3) will go into each of the digits on the inside (51).

3 goes into 5 once so we put the 1 above the line (keeping our columns in line).

We have 2 tens left over. We add these to the next column. This is regrouping the 20 and adding it to the 1 to make 21.

So now, we can ask, how many 3s go into 21...

3 will go into 21, 7 times so we put the 7 above the line (keeping our columns in line).

Have a go at this one:

$$78 \div 6 =$$

Answer on next
slide

$$78 \div 6 = 13$$

The way we write this down is as follows:

$$\begin{array}{r} 13 \\ \overline{6 \) 78} \end{array}$$

We see how many times the number on the outside (6) will go into each of the digits on the inside (78).

6 goes into 7 once, so we put the 1 above the line (keeping our columns in line)

We have 1 ten left over so we add this to the next column.

This is regrouping the 10 and adding it to the 8 to make 18.

So now, we can ask, how many 6s go into 18...

6 will go into 18, 3 times so we put the 3 above the line (keeping our columns in line).

We have a calculation $124 \div 5$

The way we write this down is as follows:

$$5 \overline{) 124}$$

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The way we write this down is as follows:

$$5 \overline{)124}$$

We see how many times the number on the outside (5) will go into each of the digits on the inside (124).

We have a calculation $124 \div 5$

The way we write this down is as follows:

$$\begin{array}{r} 0 \\ \overline{5 \) \ 124} \end{array}$$

We see how many times the number on the outside (5) will go into each of the digits on the inside (124).

5 does not go into 1... so we have to cross it off and move it next to the 2.

This is regrouping the 10 and adding it to the 2 to make 12.

We have a calculation $124 \div 5$

The way we write this down is as follows:

$$\begin{array}{r} 02 \\ \hline 5 \overline{) 124} \end{array}$$

We see how many times the number on the outside (5) will go into each of the digits on the inside (124).

5 does not go into 1... so we have to cross it off and move it next to the 2. This is regrouping the 10 and adding it to the 2 to make 12.

- So now, we can ask, how many 5s go into 12...
- 5 will go into 12, 2 times so we put the 2 above the line (keeping our columns in line).
- But there are 2 remainders, so we add these to the 4 in the next column to make 24.

$$124 \div 5 = 24r4$$

The way we write this down is as follows:

$$\begin{array}{r} 024r4 \\ 5 \overline{) 124} \end{array}$$

We see how many times the number on the outside (5) will go into each of the digits on the inside (124).

5 does not go into 1... so we have to cross it off and move it next to the 2. This is regrouping the 10 and adding it to the 2 to make 12.

- So now, we can ask, how many 5s go into 12...
- 5 will go into 12, 2 times so we put the 2 above the line (keeping our columns in line).
- But there are 2 remainders, so we add these to the 4 in the next column to make 24.

How many 5s will go into 24...

5 will go into 24, 4 times so we put the 4 above the line (keeping our columns in line).

There are 4 remainders, which have to be included as part of our answer.

24 r4.

Try this one...

$$117 \div 4 =$$

**Answer on next
slide**

$$117 \div 4 = 29r1$$

The way we write this down is as follows:

$$\begin{array}{r} 029r1 \\ \hline 4 \overline{) 1137} \end{array}$$

We see how many times the number on the outside (4) will go into each of the digits on the inside (117).

- 4 does not go into 1... so we have to cross it off and move it next to the 1.
- This is regrouping the 10 and adding it to the 1 to make 11.

- So now, we can ask, how many 4s go into 11...
- 4 will go into 11, 2 times so we put the 2 above the line (keeping our columns in line).
- But there are 3 remainders, so we add these to the 7 in the next column to make 37.

- How many 4s will go into 37...
- 4 will go into 37, 9 times so we put the 9 above the line (keeping our columns in line).
- There is 1 remainder, which has to be included as part of our answer.
- 29 r1.