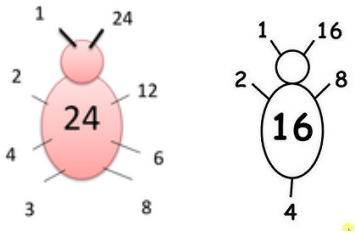
Year 4 Maths | Term: Autumn 2 | Multiplication and Division

Vocabulary/Star Words

Factor	The numbers that you are multiplying together. E.g **3 x 5** = 15 3 and 5 are the factors.
Product	The answer that you get after multiplying. E.g. 3 x 5 = **15** 15 is the product.
Place Holder	A zero that holds a place to show the value of a number.
Distributive Law	When doing a multiplication question when one factor is greater than 12, you can break the number into smaller parts to complete smaller calculations.

Factor Pairs

Factor pairs are pairs that go together to find a given product. These can be shown in a fun way – factor bugs.



- 1 x (product) are always the "antenna" of the bug.
- Work your way around the left side of the big going through the times tables in order (e.g. x2, x3) and find the matching factor to put on the right side of the bug.
- When one factor pair is the same number (e.g. 4 x 4) this goes as a stinger at the bottom of the bug.

Multiplying by 10 and 100

When multiplying by 10 or 100, we do not say that the number gains one zero or two zeros. We move the value of the digit on the place value chart to show how it is now greater in the value. We then use a zero as a place holder.

Multiplying by 10 = moving one place to the left.
Multiplying by 100 = moving two places to the left.

If we simply add zeros, it will great confusion when looking at decimals.

thousands	hundreds	tens	ones	.
		5	2	.
	5	2	0	.

Dividing by 10 and 100

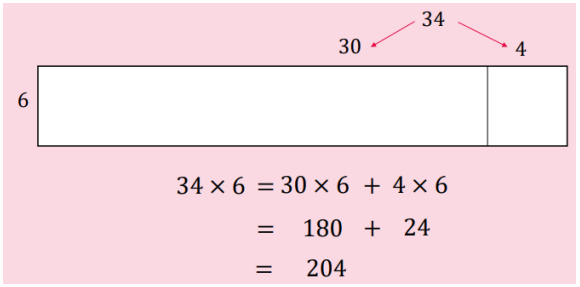
When dividing by 10 or 100, we do not say that the number loses one zero or two zeros. We move the value of the digit on the place value chart to show how it is now smaller in the value. We have removed the zero as a place holder.

Dividing by 10 = moving one place to the right.
Dividing by 100 = moving two places to the right.

If we simply remove zeros, it will great confusion when looking at decimals.

thousands	hundreds	tens	ones	.
	5	2	0	.
		5	2	.

Distributive Law



$$34 \times 6 = 30 \times 6 + 4 \times 6$$
$$= 180 + 24$$
$$= 204$$

Short Multiplication

$$\begin{array}{r} 213 \\ \times \quad 3 \\ \hline 639 \end{array}$$

$$\begin{array}{r} 342 \\ \times \quad 7 \\ \hline 2394 \\ \hline 21 \end{array}$$

Short division

186 ÷ 6 = 031

6 | 1 1 8 6

no groups of 6 can be made

3 x 6 = 18

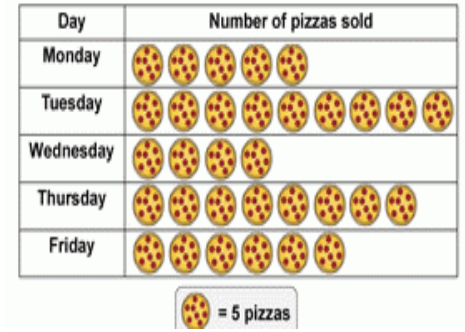
1 x 6 = 6

Year 4 Maths	Term: Autumn 2	Data

Vocabulary/Star Words

Pictogram	A graph showing data using pictures. There will often be a key to identify that one picture counts as more than one. E.g. one picture = 5 people
Bar chart	A graph showing data as bars.
Time line graph	A graph showing data changing over time. This will be shown as plots (points) joined with a line.
Interpret	To understand what the graph is telling you.

Pictograms

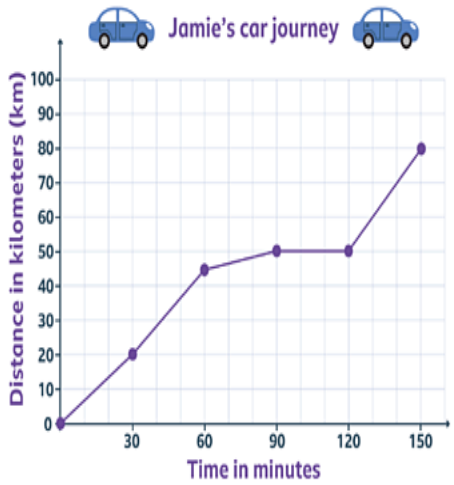


- 1 pizza picture represents 5 pizzas sold

How many pizzas were sold on Monday?
- *5 pizza pictures x 5 = 25 pizzas*

What is the difference in the number of pizzas sold on Wednesday and Thursday?
- *Weds = 4 x 5 = 20 pizzas*
- *Thurs = 8 x 5 = 40 pizzas*
- *40 – 20 = 20 pizzas*

Time Line Graphs



- Some answers will need you to look at plots (points) whilst others will need the children to follow the line.

How far had Jamie travelled in 150 minutes?
- *80km*

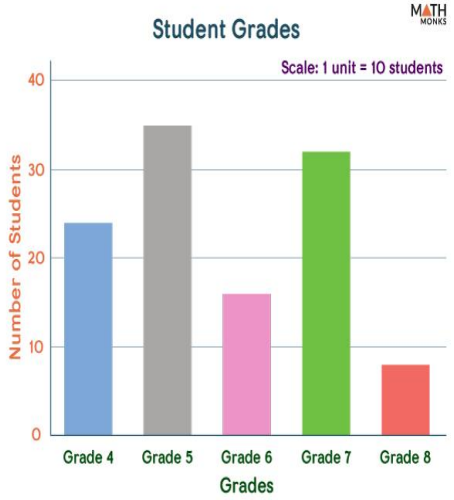
How far had Jamie approximately travelled in 130 minutes?
- *Approximately 55km*

How long did it take Jamie to travel 20km?
- *30 minutes*

How long did it take Jamie to travel approximately 40km?
- *Approximately 52 minutes*

What happened between 90 minutes and 120 minutes?
- *Jamie did not move*

Bar Charts



- Bars often do not finish on exact lines so children need to use their understanding of numbers to make an approximate answer.

How students received grade 7?
- *Approximately between 31-33 children*

Which grade had 8 children?
- *Grade 8*

What is the difference in the number of children with grade 5 and grade 6?
- *Grade 5 = 35*
- *Grade 6 = 16*
- *Approximately 19 children*

Children will also be required to draw their own versions of these graphs. **Squared graph paper** will be essential for this to help line up their work.