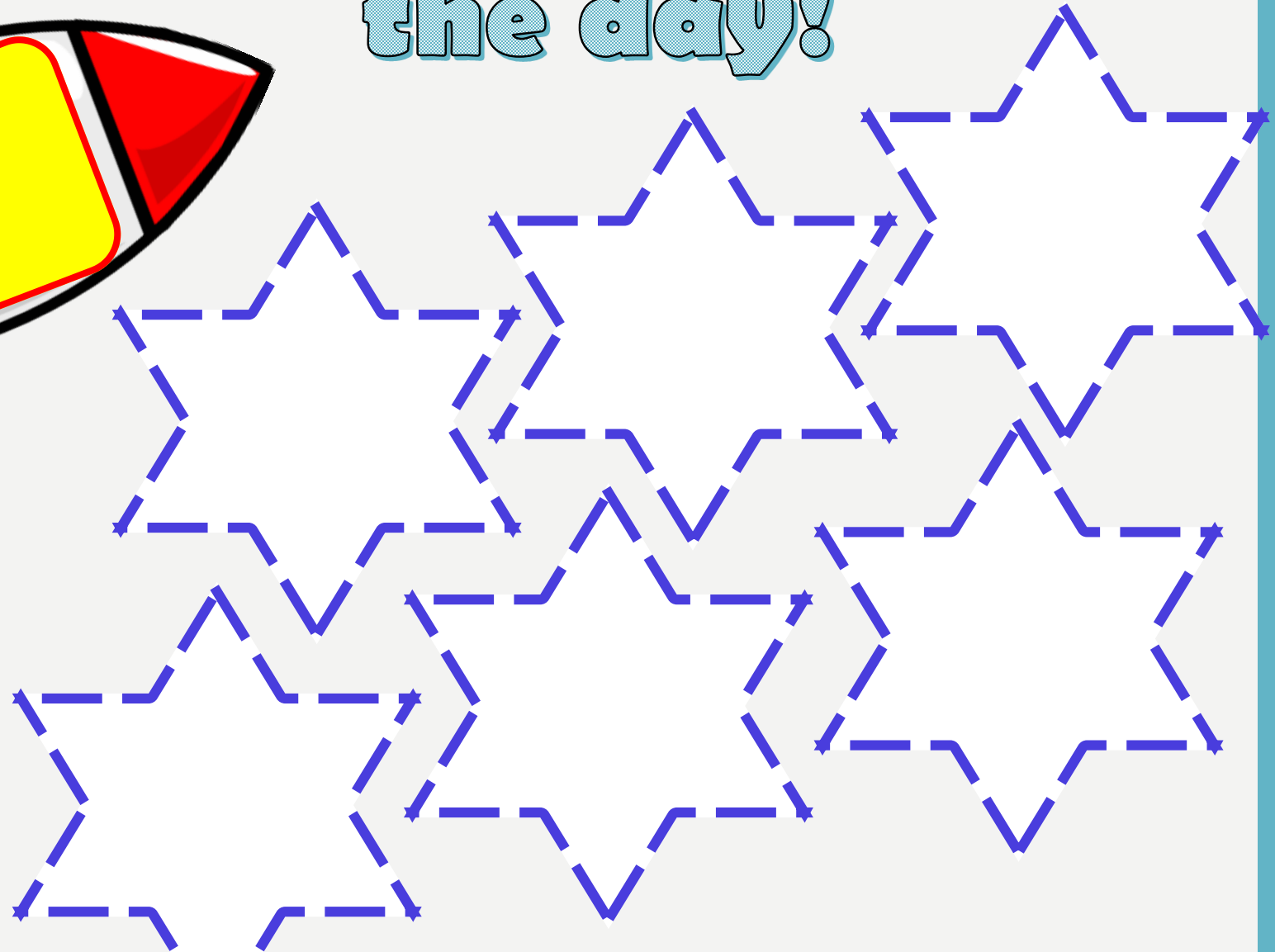
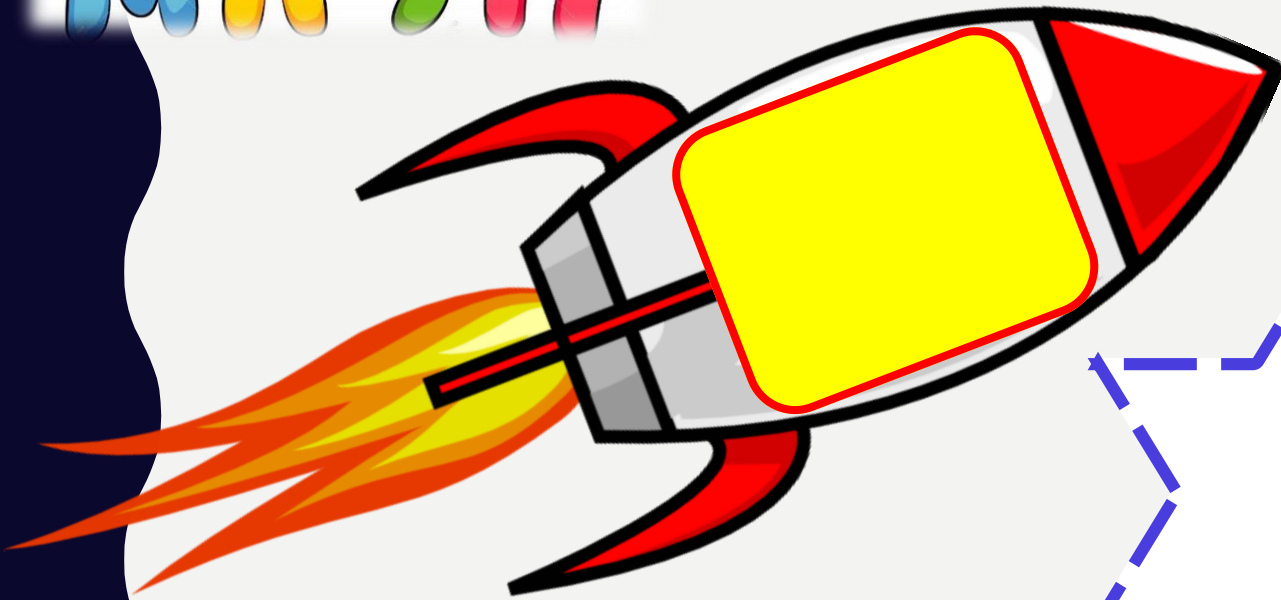




Mathematician of the day!



NAILED IT!
✓

Presentation watch...

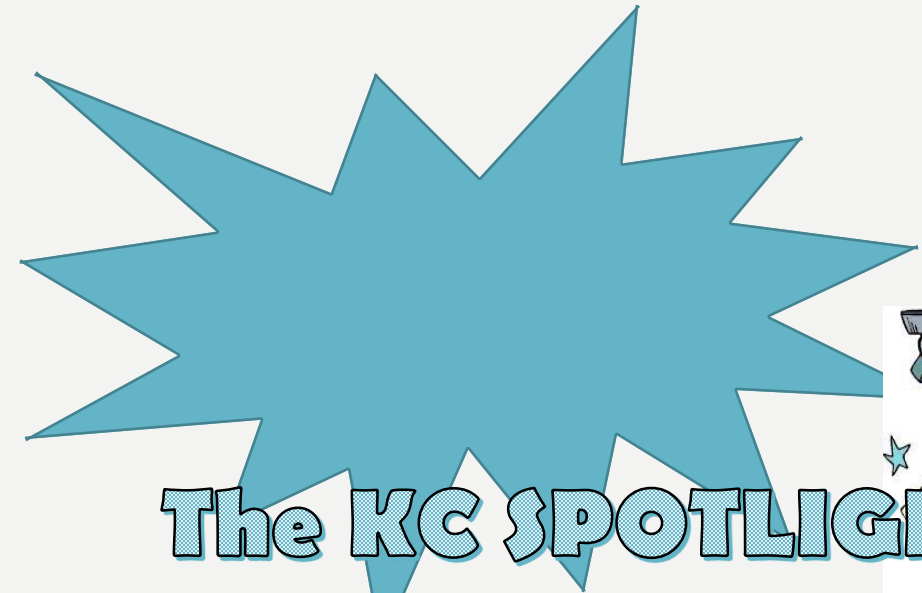
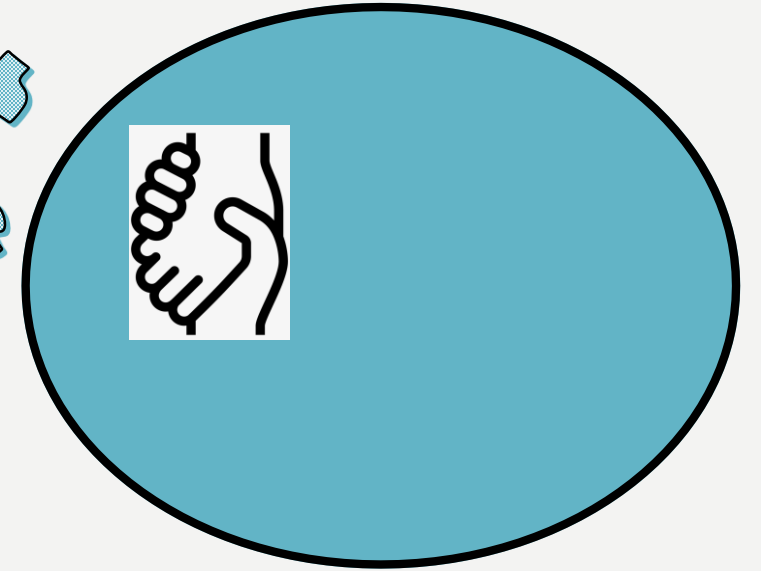


Chris



Non-negotiables

Silky's Circle



The KC SPOTLIGHT



RECALL

$$6 \overline{) 3744}$$

$$19 \overline{) 4465}$$

L.O. DIVIDE NUMBERS UP TO 4 DIGITS BY A 2-DIGIT NUMBER
USING THE FORMAL WRITTEN METHOD OF SHORT DIVISION,
INTERPRETING REMAINDERS ACCORDING TO THE CONTEXT.

- **SOME WILL EVEN:** Explain my method.
- **SOME WILL:** Check answer using short/long division.
- **MOST WILL:** Use known multiplication facts to aid calculation.
- **ALL WILL:** Use diagrams to help divide.

GUIDED PRACTICE



- a) How many times did the log flume run?
- b) The next day the log flume ran with only $\frac{4}{5}$ the capacity. 720 people still rode. How many times did the log flume run?

help

Use $15 = 3 \times 5$ – draw a diagram.



Create another question for this picture involving division.



APE

How many times did each of these rides run?



320 people rode the Runaway train. Each carriage held 16 people.



540 people rode the Ghost train. Each carriage held 18 people.



1,920 people rode the rollercoaster. Each carriage held 24 people.



The rollercoaster ran for 6 hours.
How many people rode the rollercoaster each hour?
Use the fact $1,920 \times 4 \times 6 =$

Intelligent Practice



$$320 \div 16 = \quad 16 = 2 \times 8$$

160				160			
-----	--	--	--	-----	--	--	--

$$320 \div 2 = 160$$

20	20	20	20	20	20	20	20
----	----	----	----	----	----	----	----

$$160 \div 8 = 20$$



$$540 \div 18 = \quad 18 = 2 \times 9$$

270				270			
-----	--	--	--	-----	--	--	--

$$540 \div 2 = 270$$

30	30	30	30	30	30	30	30	30
----	----	----	----	----	----	----	----	----

$$270 \div 9 = 30$$



$$1,920 \div 24 = \quad 24 = 4 \times 6$$

480	480	480	480
-----	-----	-----	-----

$$1,920 \div 4 = 480$$

80	80	80	80	80	80
----	----	----	----	----	----

$$480 \div 6 = 80$$



The rollercoaster ran for 6 hours.
How many people rode the rollercoaster each hour?
Use the fact $1,920 \div 4 \times 6 = 80$

DIVE DEEPER 1 7 4ops

- 1 A new roller coaster opens at the park. 1,260 people ride on it in the first 14 days. How many people is that per day?

I know 14 is 2×7 . I will divide by 2, and then divide by 7.



1,260

$$1,260 \div 2 = \square$$

$$\square \div 7 = \square$$

people ride on the new roller coaster per day.

- 2 Tickets for the park cost £18 per person. On one day the park made £5,490. How many tickets were sold?

Choose which method solves the division correctly, then solve it.

$$5,490 \rightarrow \boxed{\div 6} \rightarrow \boxed{\div 3} \rightarrow$$

$$5,490 \rightarrow \boxed{\div 10} \rightarrow \boxed{\div 8} \rightarrow$$

$$5,490 \div \square \div \square = \square$$

tickets were sold on that day.

- 3 a) Max is trying to solve $2,100 \div 12$.

I will use the facts that 12 is 2×6 , 6×2 , 3×4 and 4×3 .

I can see that 12 is also $3 \times 2 \times 2$.

CHALLENGE



$$2,100 \rightarrow \boxed{\div 2} \rightarrow \boxed{\div 6} \rightarrow$$

$$2,100 \rightarrow \boxed{\div 6} \rightarrow \boxed{\div 2} \rightarrow$$

$$2,100 \rightarrow \boxed{\div 3} \rightarrow \boxed{\div 4} \rightarrow$$

$$2,100 \rightarrow \boxed{\div 4} \rightarrow \boxed{\div 3} \rightarrow$$

$$2,100 \rightarrow \boxed{\div 3} \rightarrow \boxed{\div 2} \rightarrow \boxed{\div 2} \rightarrow$$

Max tries each of these calculations.

Do they all give the correct answer?

Which method makes it easiest to solve?

- b) Reena is trying to solve $1,800 \div 24$. Which factors could she choose?

$$1,800 \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?}$$

$$1,800 \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?}$$

$$1,800 \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?} \rightarrow \boxed{\div ?}$$

- 1 A new roller coaster opens at the park. 1,260 people ride on it in the first 14 days. How many people is that per day?

I know 14 is 2×7 . I will divide by 2, and then divide by 7.



1,260

630
630

90	90	90	90	90	90	90
90	90	90	90	90	90	90

$$1260 \div 2 = 630 \quad 630 \div 7 = 90$$

90 people ride on the new rollercoaster per day.



- 2 Tickets for the park cost £18 per person. On one day the park made £5,490. How many tickets were sold?

Choose which method solves the division correctly, then solve it.

$$5,490 \rightarrow \boxed{\div 6} \rightarrow \boxed{\div 3} \rightarrow$$

$$5,490 \rightarrow \boxed{\div 10} \rightarrow \boxed{\div 8} \rightarrow$$

$$5,490 \div \boxed{} \div \boxed{} = \boxed{}$$

tickets were sold on that day.

$$5490 \div 6 \div 3 = 305$$

915	915	915	915	915	915
-----	-----	-----	-----	-----	-----

305	305	305
-----	-----	-----

305 tickets were sold on that day.



1050			1050		
------	--	--	------	--	--

175	175	175	175	175	175
-----	-----	-----	-----	-----	-----

350	350	350	350	350	350
-----	-----	-----	-----	-----	-----

175			175		
-----	--	--	-----	--	--

700		700		700
-----	--	-----	--	-----

175	175	175	175
-----	-----	-----	-----

525	525	525	525
-----	-----	-----	-----

175	175	175
-----	-----	-----



3 a) Max is trying to solve $2,100 \div 12$.



I will use the facts that 12 is 2×6 , 6×2 , 3×4 and 4×3 .

I can see that 12 is also $3 \times 2 \times 2$.



$$\begin{aligned}
 2,100 &\rightarrow \boxed{\div 2} \rightarrow \boxed{\div 6} \rightarrow \\
 2,100 &\rightarrow \boxed{\div 6} \rightarrow \boxed{\div 2} \rightarrow \\
 2,100 &\rightarrow \boxed{\div 3} \rightarrow \boxed{\div 4} \rightarrow \\
 2,100 &\rightarrow \boxed{\div 4} \rightarrow \boxed{\div 3} \rightarrow \\
 2,100 &\rightarrow \boxed{\div 3} \rightarrow \boxed{\div 2} \rightarrow \boxed{\div 2} \rightarrow
 \end{aligned}$$

Max tries each of these calculations.
Do they all give the correct answer?
Which method makes it easiest to solve?

700	700	700
-----	-----	-----

350	350
-----	-----

175	175
-----	-----

4

a) $480 \div 8 = 60$

Use division by factors to show how you can use this calculation to work out:

i) $480 \div 16 = \square$



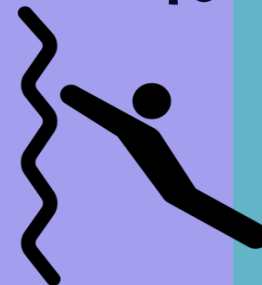
ii) $960 \div 32 = \square$



- b) Ambika says 'If I double the number that I am dividing by, the answer to the division will be halved.'

Bella says 'I think that means that if I double both numbers in a division, the answer will be halved and then halved again.'

Do you agree with both Ambika and Bella? Show how you know.

$$480 \div 16 = 30$$

$$480 \div 2 \div 8 =$$

240				240			
-----	--	--	--	-----	--	--	--

30	30	30	30	30	30	30	30
----	----	----	----	----	----	----	----

$$960 \div 32 = 30$$

$$960 \div 4 \div 8 =$$

240	240	240	240
-----	-----	-----	-----

30	30	30	30	30	30	30	30
----	----	----	----	----	----	----	----

