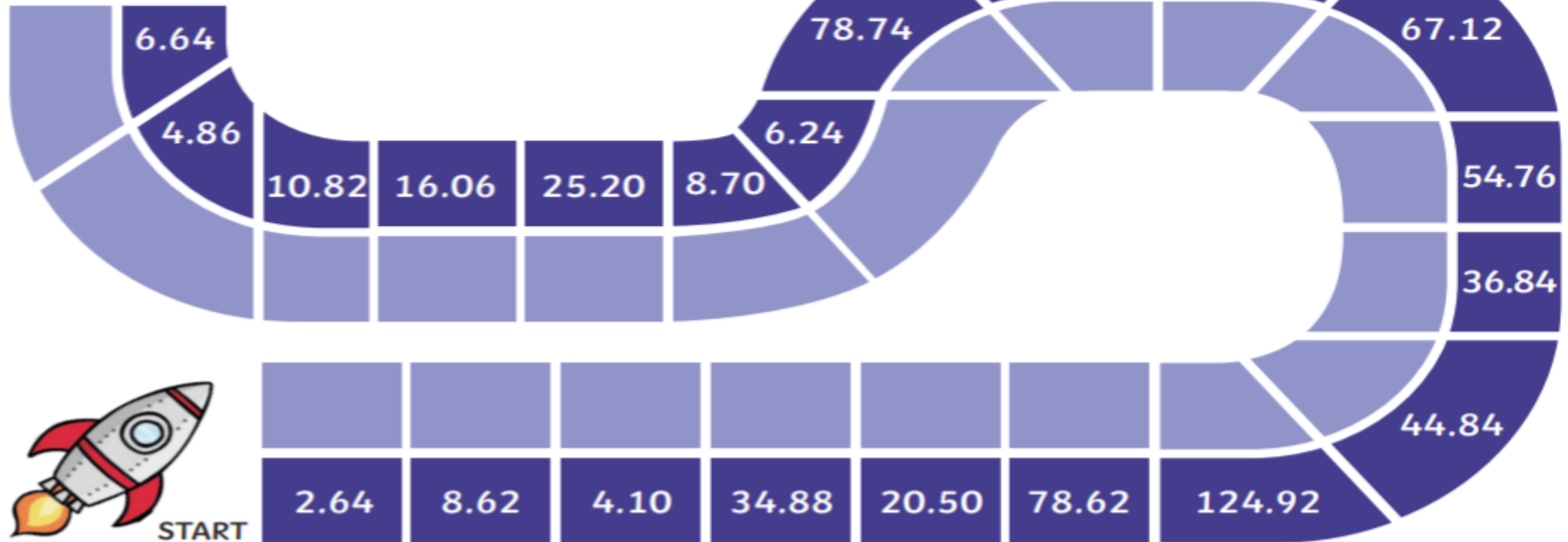


RECALL

Halving Decimals Space Race

How fast can you halve these decimals?
Halve the numbers on the track and write the answers as you go.
Use a timer to see how long it takes you to finish the race!

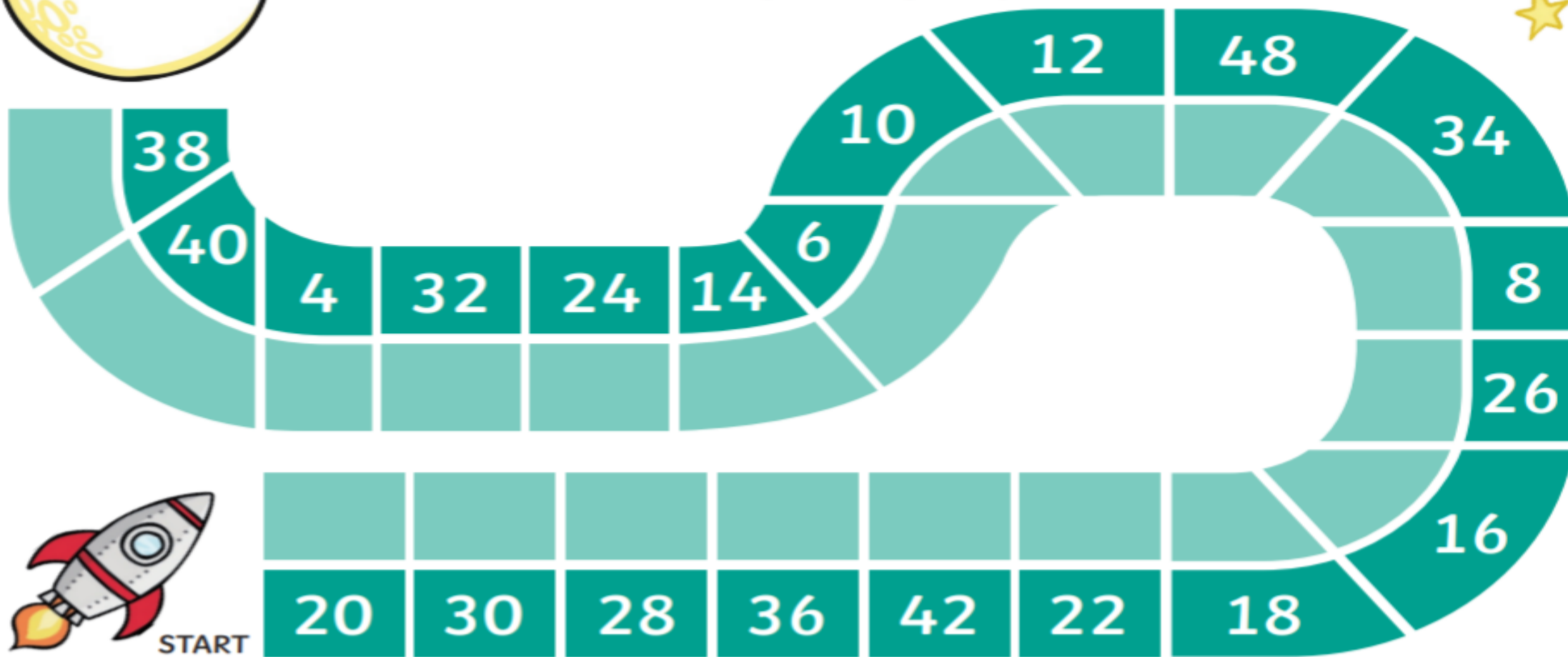


RECALL

Halving Space Race

How fast can you halve?

Halve the numbers on the track and write the answers as you go.
Use a timer to see how long it takes you to finish the race!



START

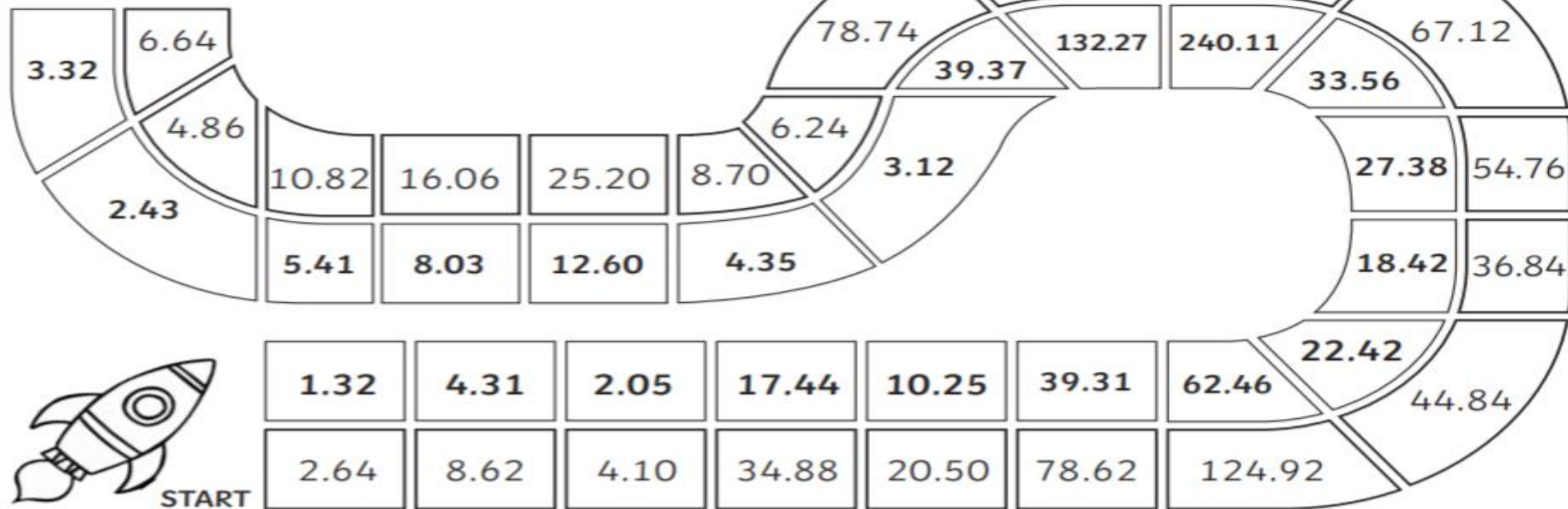
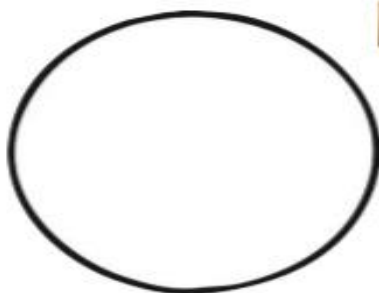
RECALL

Halving Decimals Space Race Answers

How fast can you halve these decimals?

Halve the numbers on the track and write the answers as you go.

Use a timer to see how long it takes you to finish the race!



L.O. MULTIPLY MULTI-DIGIT NUMBER UP TO 4
DIGITS BY A 2-DIGIT NUMBER USING THE FORMAL
WRITTEN METHOD OF COLUMN MULTIPLICATION.

- **SOME WILL EVEN:** Use various ways to solve and check sums.
- **SOME WILL:** Split sum into smaller chunks and complete short multiplication.
- **MOST WILL:** Use long multiplication.
- **ALL WILL:** Use partitioning to make the sum easier.

GUIDED PRACTICE – MY TURN

2. One gigabyte (GB) is 1024 megabytes (MB). A computer file is 27GB. How many megabytes is the file?



a) Answer the question given...

b) The number of gigabytes now doubles. What is the number of megabytes now?



Use derived facts to make the sum easier (e.g. $1024 \times 3 + 1024 \times 9$).

GUIDED PRACTICE – YOUR TURN

2. One gigabyte (GB) is 1024 megabytes (MB). A computer file is 23GB. How many megabytes is the file?



a) Answer the question given...

b) The number of gigabytes now doubles. What is the number of megabytes now?

help



Use partitioning to make the sum easier (e.g. $1024 \times 3 + 1024 \times 9$).

Max wants to download two different games, one at 32Gb and one at 56gb but he only has 90,000MB of memory left on his laptop. Can he download them?.

One gigabyte (GB) is 1024 megabytes (MB).

Name of game	Number of GB	Number of MB	Can it be downloaded?
War Games	25		
Supersonic	35		
Crazy Karts		71,680	
Yearnight		143,360	



Think about how you can use what information your given to work out the answers...



Tommy downloads three games that hit the full memory capacity of his computer. What could the size of these games be in GB?

One gigabyte (GB) is 1024 megabytes (MB).

Name of game	Number of GB	Number of MB	Can it be downloaded?
War Games	25	25,600	YES
Supersonic	35	35,840	YES
Crazy Karts	70	71,680	YES
Yearnight	140	143,360	NO



Tommy downloads three games that hit the full memory capacity of his computer.
What could the size of these games be in GB?





DIVE DEEPER 1

1)

Place the digits in the boxes to make the largest product.

2 3 4 5 7 8

×				

2)

$$3,257 \times 4 = 13,024$$

I know this is wrong by looking at the ones digit.



Prove it!

3) True or False?

- $5,463 \times 18 = 18 \times 5,463$
- I can find the answer to $1,100 \times 28$ by calculating $1,100 \times 30$ and subtracting 2 lots of 1,100
- $702 \times 9 = 701 \times 10$

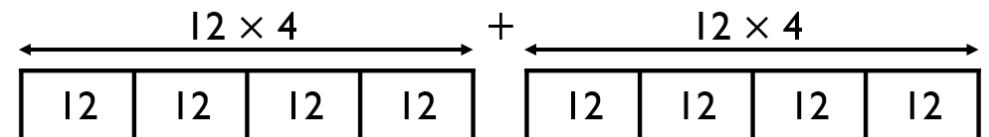
4)

Which calculations will give an answer that is the same as the product of 12 and 8?

$$3 \times 4 \times 8$$

$$12 \times 4 \times 2$$

$$2 \times 10 \times 8$$



DIVE DEEPER 1

1)

Place the digits in the boxes to make the largest product.

2 3 4 5 7 8

	8	5	3	2
×			7	4
6	3	1,3	6	8

2)

$$3,257 \times 4 = 13,024$$

I know this is wrong by looking at the ones digit.

$7 \times 4 = 28$ therefore an 8 would be in the ones column not a 4



3) True or False?

- $5,463 \times 18 = 18 \times 5,463$ **TRUE**
- I can find the answer to $1,100 \times 28$ by calculating $1,100 \times 30$ and subtracting 2 lots of 1,100 **TRUE**
- $702 \times 9 = 701 \times 10$ **FALSE**

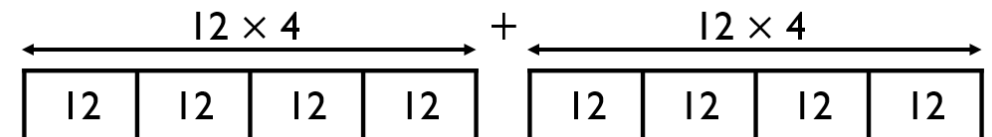
4)

Which calculations will give an answer that is the same as the product of 12 and 8?

$$3 \times 4 \times 8 \quad \checkmark$$

$$12 \times 4 \times 2 \quad \checkmark$$

$$2 \times 10 \times 8 \quad \times$$



5)

Rosie does 37 sit-ups every day for a year.

Annie does 370 sit-ups every day in July.

Who does more sit-ups and by how many?

_____ does more sit-ups.

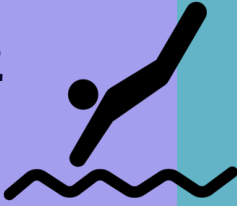
She does	more sit-ups.
----------	---------------

6)

A horizontal row of five light blue rectangular boxes. Each box contains a black number. From left to right, the numbers are 1, 2, 3, 6, and 5.

Using the digit cards, what is the greatest 3-digit by 2-digit product you can make that is also an odd number?

DIVE DEEPER 2



7)

Kim knows that

$$137 \times 28 = 3836$$

Explain how she can use this information to work out this multiplication.

138 × 28



Write the **three prime numbers** which multiply to make **231**

$$\square \times \square \times \square = 231$$

- 5) Rosie does 37 sit-ups every day for a year.
Annie does 370 sit-ups every day in July.
Who does more sit-ups and by how many?

$$37 \times 365 =$$

$$365 \times 30 = 10,950$$

$$365 \times 7 = 2,555$$

$$10,950 + 2,555 =$$

13,505

ROSIE

_____ does more sit-ups.

She does 2, 035 more sit-ups.

$$370 \times 31 =$$

$$30 \times 370 = 11,100$$

$$1 \times 370 = 370$$

$$1,110 + 370 = 11,470$$

$$13,505 - 11,470 =$$
$$2, 035$$

DIVE DEEPER 2



7)

Kim knows that

$$137 \times 28 = 3836$$

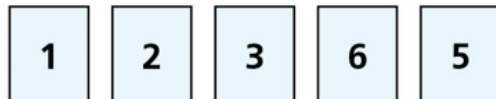
Explain how she can use this information to work out this multiplication.

$$138 \times 28$$

.....

.....

6)



Using the digit cards, what is the greatest 3-digit by 2-digit product you can make that is also an odd number?



Write the **three prime numbers** which multiply to make 231

$$\boxed{} \times \boxed{} \times \boxed{} = 231$$

1 mark

