RECALL

x	10	10	5	3
8				

8 x _____ = _____

RECALL

x	10	10	5	3
8	80	80	40	24

8 x 28 = 224

L.O. DIVIDE NUMBERS UP TO 4 DIGITS BY A 2-DIGIT WHOLE NUMBER USING THE FORMAL WRITTEN METHOD OF SHORT DIVISION.

- SOME WILL EVEN: Prove my answer is right in several ways.
- SOME WILL: Use short division to solve the sum.
- MOST WILL: Use various models to represent the sum.
- ALL WILL: Use know multiples and factors to aid in calculation.

a) Each astronaut has 132 bottles of water for their stay in the space station.
How many days will this last for one astronaut?

b) The astronauts eat the same amount of fruit puree each week.
How many tubes of fruit puree will they eat each week?

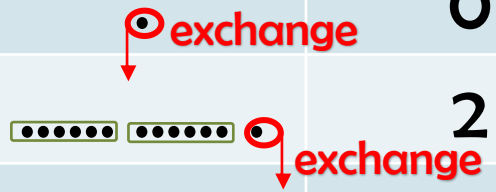
help

Chunk the number to help you.



132 ÷ 6 = 22

	120	12
6	20	2

	6	answer
1		0
$_{1}3$		2
$_{1}2$		2

	0	2	2
6	1	$^{1}3$	$^{1}2$

a) Each astronaut has 150 bottles of water for their stay in the space station.
How many days will this last for one astronaut?

b) The astronauts eat the same amount of fruit puree each week.
How many tubes of fruit puree will they eat each week?

help

Chunk the number to help you.

CHALLENGE!

Wes says they will need 294 pieces of fruit per person for 14 weeks if they want 3 pieces a day. Is he correct?

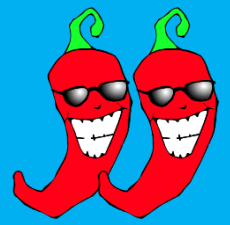


Intelligent Practice



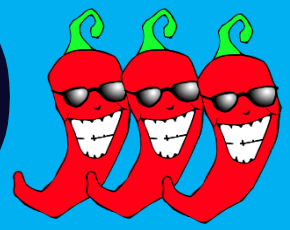
	?	?	?	?
5	1000	200	30	5

1235 ÷ 5 = _____



	?	10	?	?
9	900	?	45	9

_____ ÷ 9 = _____



Use this method your favourite method to solve following division sums:

2,415 ÷ 7 =

2,310 ÷ 15 =

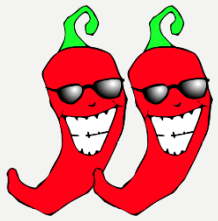
Prove your answers using a different method.

Intelligent Practice



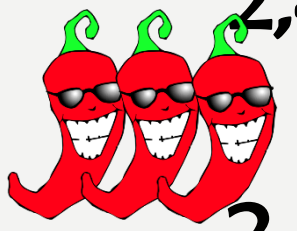
	200	40	6	1
5	1000	200	30	5

1235 ÷ 5 = 247



	100	10	5	1
9	900	90	45	9

1044 ÷ 9 = 116



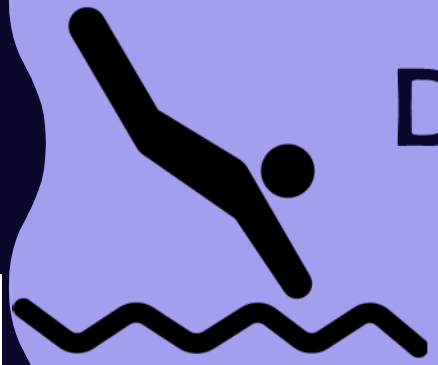
2,415 ÷ 7 = 345

2,310 ÷ 15 = 154

	300	40	5
7	2100	280	35

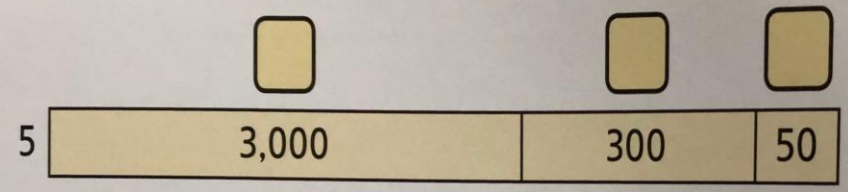
	100	50	4
15	1500	750	60

DIVE DEEPER 1



1)

In total, there are 3,350 kg of supplies on the space station. If the astronauts use 5 kg of supplies per day, how many days will the supplies last for?



5) 3 3 5 0

The supplies will last for ☐ days.

A rocket can carry 560 kg.

If each satellite weighs 40 kg, how many satellites can a rocket carry?

40) 5 6 0

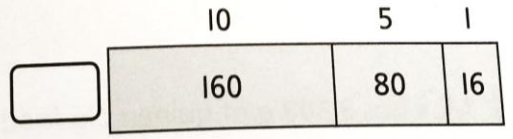
A rocket can carry ☐ satellites.

2)

Match each division to a model, and then complete the models and the divisions.

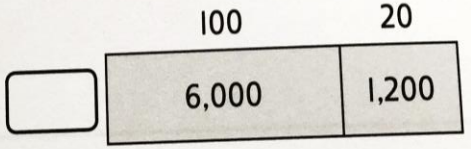
6) 1 5 3 6

1,536 ÷ 6 = ☐



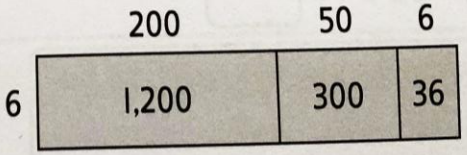
16) 2 5 6

256 ÷ 16 = ☐



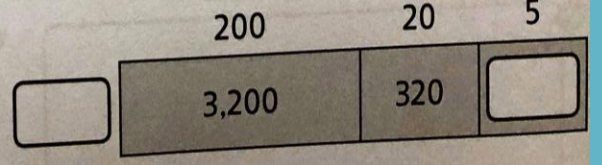
16) 3 6 0 0

3,600 ÷ 16 = ☐



60) 7 2 0 0

☐ = 7,200 ÷ 60



DIVE DEEPER 1

1)

In total, there are 3,350 kg of supplies on the space station. If the astronauts use 5 kg of supplies per day, how many days will the supplies last for?

600	60	10
5 | 3,000	300	50

5 | 3 3 5 0

6 7 0

The supplies will last for **670 days**

A rocket can carry 560 kg.

If each satellite weighs 40 kg, how many satellites can a rocket carry?

1 4

40 | 5 6 0

A rocket can carry **14 satellites.**

2)

Match each division to a model, and then complete the models and the divisions.

6 | 1 5 3 6

1,536 ÷ 6 = **256**

16 | 2 5 6

256 ÷ 16 = **16**

16 | 3 6 0 0

3,600 ÷ 16 = **225**

60 | 7 2 0 0

120 = 7,200 ÷ 60

10	5	1
160	80	16

16

100	20
6,000	1,200

60

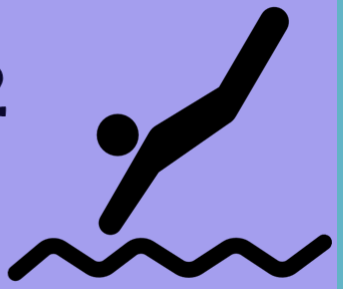
200	50	6
1,200	300	36

6

200	20	5
3,200	320	**80**

16

DIVE DEEPER 2



3 a) Solve these divisions.

5,050 ÷ 25 = ☐

1,770 ÷ 15 = ☐

☐ = 9,840 ÷ 24

I wonder if I could work these out WITHOUT a written method?



4) Solve these divisions.

a) 468 ÷ 9 = ☐

b) 4,689 ÷ 9 = ☐

c) 378 ÷ 18 = ☐

d) 3,798 ÷ 18 = ☐

Do you need to recalculate for second sum or can you use the answer from the first sum to help you?

5) These is no remainder in either of these divisions.
Work out the missing digits.

```
      0  4  ✱  4
   ┌──────────
11 │ 4  6  ✱  4
```

I will start by working out how many groups of 11 are in 46.



```
      2  0  ✱
   ┌──────────
12 │ ✱  4  7  ✱
```



Find the missing digits...

```
         3     3
   ┌──────────
22 │     8  8
```

☐ ÷ 22 = ☐

DIVE DEEPER 2

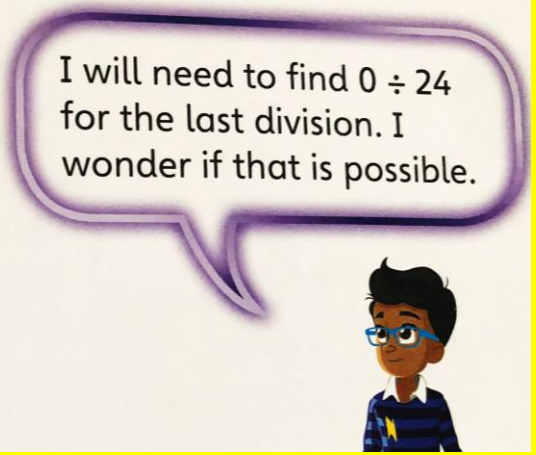


3 a) Solve these divisions.

5,050 ÷ 25 = **202**

1,770 ÷ 15 = **118**

410 = 9,840 ÷ 24



4) Solve these divisions.

a) 468 ÷ 9 = **52**

b) 4,689 ÷ 9 = **521**

c) 378 ÷ 18 = **21**

d) 3,798 ÷ 18 = **211**

5) These is no remainder in either of these divisions.
Work out the missing digits.

$$\begin{array}{r} 0\ 4\ \mathbf{2}\ 4 \\ 11\overline{)\ 4\ 6\ \mathbf{2}\ 4} \end{array}$$

$$\begin{array}{r} 2\ 0\ \mathbf{6} \\ 12\overline{)\ \mathbf{2}\ 4\ 7\ \mathbf{2}} \end{array}$$





Find the missing digits...

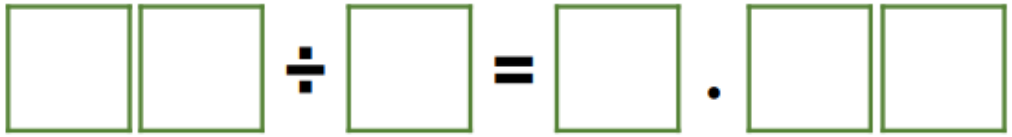
$$\begin{array}{r} 3\ \mathbf{1}\ 3 \\ 22\overline{)\ \mathbf{6}\ 8\ 8\ \mathbf{6}} \end{array}$$

6886 ÷ 22 = **313**

NRICH

9a. Use the digit cards to complete the calculation. The divisor is less than 5.





9b. Use the digit cards to complete the calculation. The divisor is greater than 6.

