## RECALL

$$
342 \div 3=
$$

$$
1344 \div 7=
$$

$$
\begin{aligned}
& 351 \div 13= \\
& 1632 \div 17= \\
& 4896 \div 36=
\end{aligned}
$$



## LEARNING HABITS?



## GUIDED PRACTICE

1) Four small blocks
balance a 0.8 kg
box.
What is the mass of
each small block?
2) How many blocks
will balance an 8 kg
crate?


How many different ways can you represent this calculation?

## INTELLIGENT PRACTICE

Complete these calculations

1) $4.2 \div 2=$
2) $6.6 \div 2=$
3) $12.8 \div 2=$
4) $22.4 \div 2=$

What do you notice?

Complete these calculations

1) $9.64 \div 4=$
2) $96.4 \div 4=$
3) $0.964 \div 4=$
4) $9.64 \div 8=$

What do you notice?

Complete these calculations

1) $19.44 \div 9=$
2) $19.53 \div 9=$
3) $19.62 \div 9=$
4) $19.71 \div 9=$

What do you notice?

## INTELLIGENT PRACTICE ANSWERS



Complete these calculations

1) $4.2 \div 2=2.1$
2) $6.6 \div 2=3.3$
3) $12.8 \div 2=6.4$
4) $22.4 \div 2=11.2$

What do you notice?

Complete these calculations

1) $9.64 \div 4=2.41$
2) $96.4 \div 4=24.1$
3) $0.964 \div 4=0.241$
4) $9.64 \div 8=1.205$

What do you notice?

Complete these calculations

1) $19.44 \div 9=2.16$
2) $19.53 \div 9=2.17$
3) $19.62 \div 9=2.18$
4) $19.71 \div 9=2.19$

What do you notice?

## DIVE DEEPER 1

1) Use place value counters to solve the calculations shown.
$8.4 \div 4=$
$12.3 \div 3=$

2) Solve the division. Draw your answer.
$16.4=\div 4=$
3) Use division to work out the calculations.
a) $22.4 \div 7$
b) $18.48 \div 8=$

## DIVE DEEPER 1 ANSWERS

1) Use place value counters to solve the calculations shown.
$8.4 \div 4=2.1$
$12.3 \div 3=4.1$

2) Solve the division. Draw your answer.
$16.4=\div 4=4.1$
3) Use division to work out the calculations.
a) $22.4 \div 7=3.2$
b) $18.48 \div 8=2.31$

## DIVE DEEPER 2

4) Predict whether the answers to these divisions will have one or two decimal places.
a) $0.8 \div 5=$
b) $85.8 \div 5=$
c) $8.05 \div 5=$
d) $508.5 \div 5=$

Complete each calculation to check.
5) Use Esther's method to complete the part-whole model and calculation.

a)

b)

6) Fill in the missing numbers.
$3.6 \div 4=36 \div$ $\qquad$
$3.6 \div 4=$ $\qquad$ $\div 8$

## DIVE DEEPER 2 ANSWERS

4) Predict whether the answers to these divisions will have one or two decimal places.
a) $0.8 \div 5=0.16$ b) $85.8 \div 5=17.16$ c) $8.05 \div 5=1.61$ d) $508.5 \div 5=101.7$

Explain how you can predict the amount of decimal places
5) Use Esther's method to complete the part-whole model and calculation.

$13.2 \div 4=3.3$
a)

$9.2 \div 4=2.3$
b)

6) Fill in the missing numbers.
$3.6 \div 4=36 \div 40$
$3.6 \div 4=7.2 \div 8$

## Can you explain why this works?

Can you find other examples or even create a rule?

## DIVE DEEPER 3

1) Calculate the width of one paving slab
2) How many slabs would Toshi need to make a path that is at least 10 m long


Complete the calculation.
What patterns do you notice?
$8.4 \div$ $\qquad$ $=4.2 \div$ $\qquad$
How many different solutions can you find?

Can you write a rule?
Can you express your rule algebraically?

## SELF-ASSESSMENT

- Some will even be able to create suppositions about dividing decimals
- Some will be able predict answers using their knowledge of division
- Most will be able to use long division to divide decimals
- All will be able to use a diagrams to divide decimals

