

Lesson 7- divide with remainders

LO: To be able to divide up to 4 digit by 1 digit numbers with remainders

Recall

12. 1134 train passengers are given tickets to sit in 9 different carriages. How many passengers are in each carriage?

[illegible][illegible]

LO: To be able to divide up to 4 digit by 1-digit numbers with remainders

Top Down	Self Assessment
Some of us will even: I can answer problem solving and reasoning questions when dividing up to 4 digit by 1-digit numbers with remainders	
Some of us will: I can divide 4 digit numbers by 1-digit numbers with remainders	
Most of us will: I can divide 3 digit numbers by 1-digit numbers with remainders	
All of us will: I can identify whether a number will divide into equal groups.	

Guided practice - My turn

- ▶ How many full trays of cakes can be made?
- ▶ Will there be any cake cases left over?

help

- ▶ A multiplication square or partitioning may be helpful



- ▶ How many full trays of cakes would there be if 1 tray could hold 7 cases? How many cakes will be left over?

Guided practice - My turn

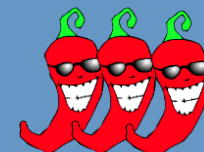
- ▶ How many full trays of cakes can be made?
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help

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- ▶ How many full trays of cakes would there be if 1 tray could hold 9 cases? How many cakes will be left over?



Use written method to solve these calculations.

$$1. 445 \div 4 =$$

$$2. 563 \div 4 =$$

$$3. 259 \div 4 =$$

$$4. 314 \div 3 =$$

$$5. 874 \div 3 =$$

Use written method to solve these calculations.

$$1. 1234 \div 3 =$$

$$2. 1234 \div 4 =$$

$$3. 1234 \div 5 =$$

$$4. 1234 \div 6 =$$

$$5. 1234 \div 7 =$$

Use written method to solve these calculations.

$$1. 4593 \div 8 =$$

$$2. 3901 \div 5 =$$

$$3. 8288 \div 3 =$$

$$4. 1291 \div 6 =$$

$$5. 2210 \div 9 =$$

3 a) Predict which of these divisions will have a remainder.

$$95 \div 5$$

$$191 \div 2$$

$$535 \div 4$$

Check using the short division method.
How accurate were your predictions?

b) Is it possible to work out the remainders to these divisions, even though some of the numbers are unknown?

$$?6 \div 5$$

$$7?3 \div 2$$

$$???6 \div 5$$

$$73? \div 2$$

I think I will use my knowledge of the 2 and 5 times-tables to help me.





Dive Deeper 1

1)

1. The cafe have 195 sausages left. If they need 4 sausages per portion, how many portions can they serve?
2. The cafe has served 85 slices of chocolate cake today. If each whole cake was cut into 6 slices, how many cakes did they cut up?
3. Exactly how many weeks are in 31 days?

2)

5a. Oranges are packed into nets. One net holds 5 oranges. There are 2,307 oranges. How many nets are needed to hold all the oranges?

3)

1a. Johnny is calculating $3,665 \div 3$.



The answer is
1,221 r3.

Johnny

Thousands	Hundreds	Tens	Ones
1,000 1,000 1,000	100 100 100	10 10 10	1 1 1

Is he correct? Explain your reasoning.

4)

Next Step

In each calculation, what's the remainder?

$$\begin{array}{r} 18 \square \\ 4 \overline{) 7^3 5^2 8} \end{array}$$

$$\begin{array}{r} 07 \square \\ 6 \overline{) 4^4 6^3 8} \end{array}$$

$$\begin{array}{r} 18 \square \\ 4 \overline{) 7^3 2^2 8} \end{array}$$

$$\begin{array}{r} 06 \square \\ 6 \overline{) 4^4 1^3 8} \end{array}$$

$$\begin{array}{r} 1264 \\ 6 \overline{) 7^1 5^3 8^2 4} \end{array}$$

$$\begin{array}{r} 187 \square \\ 4 \overline{) 7^3 4^2 9^1 8} \end{array}$$

$$\begin{array}{r} 079 \square \\ 6 \overline{) 4^4 7^5 8^3 8} \end{array}$$

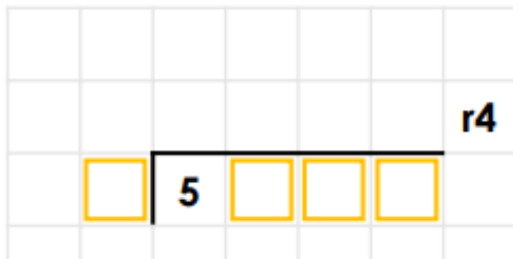


1)

1,269						
A	A	A	A	A	A	3

3)

5 4 7



2)

Question	Answer
Eggs are put in boxes of 6. The farmer has 51 eggs. How many boxes does he need for all the eggs?	9 boxes
A sunflower grows to a height of 51 cm in 6 weeks. On average, how many centimetres does it grow each week?	
51 children turn up for a 6-a-side football tournament. How many teams can be made? <i>Teams can have substitutes.</i>	
An artist works on a masterpiece for 51 hours over 6 days. On average, how long does she work each day?	

4)

When it is divided by 5, the remainder is 4

What is my number?