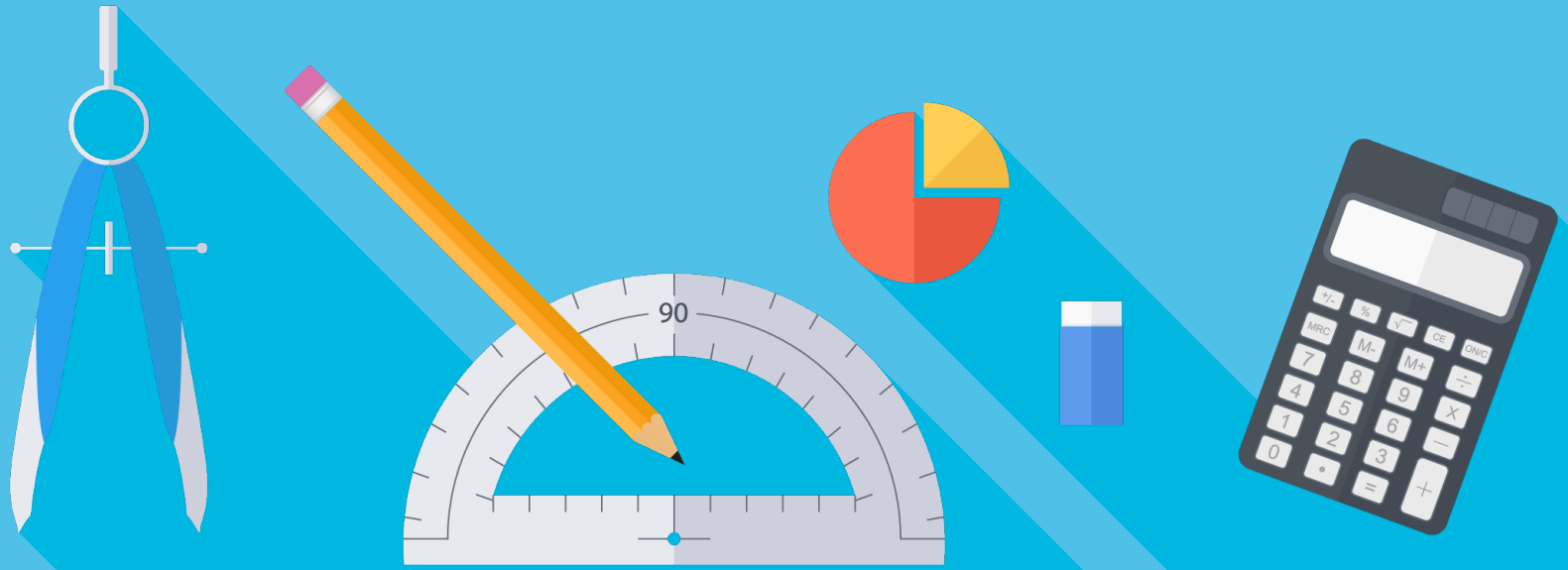
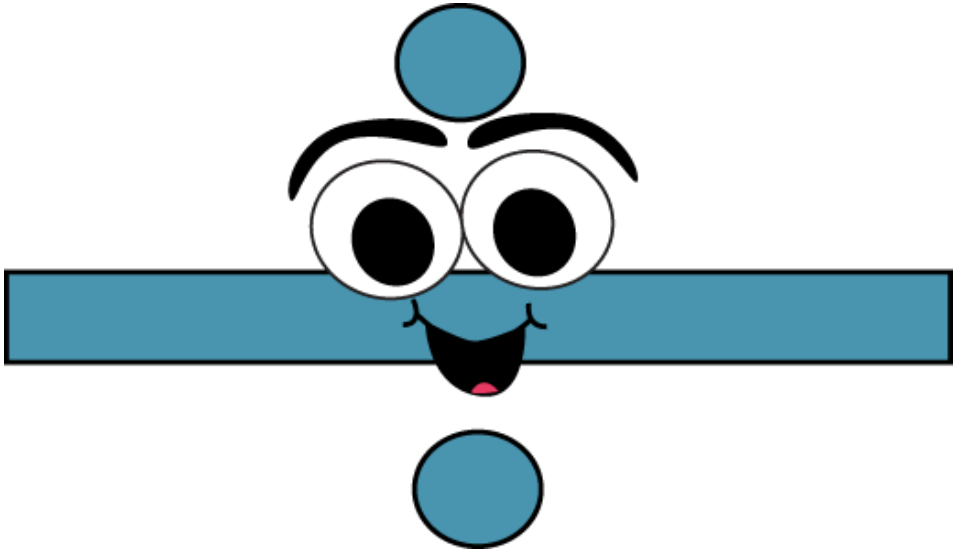
Tuesday Week 3

Maths Task



Division Algorithms

WALT: select and apply appropriate strategies to solve division problems including those that result in a remainder.

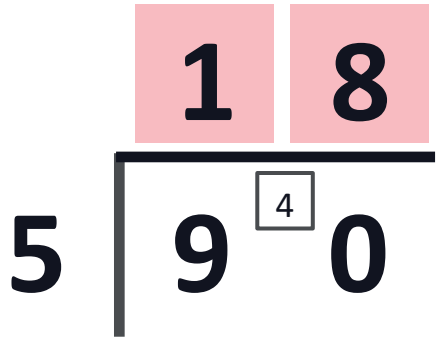


© Templateswise.com

Short Division Formal Algorithm

2 - Digit

90 ÷ 5 = 18



How many 5s are there in 9?

How many are left over?

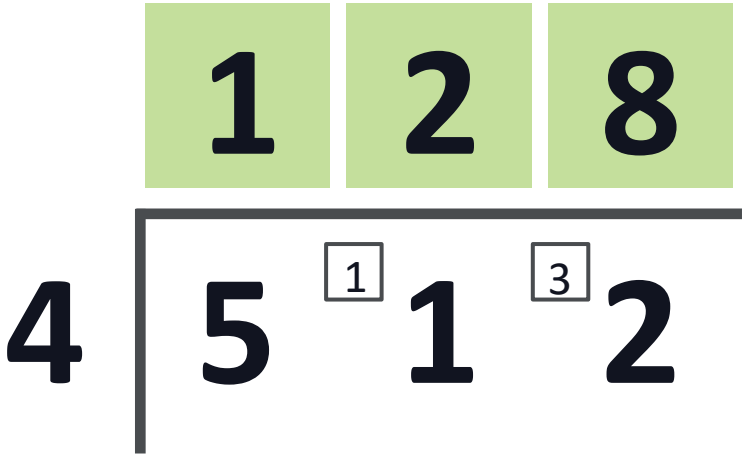
How many 5s are there in 40?

Great!

Short Division Formal Algorithm

3 - Digit

512 ÷ 4 = 128



How many 4s are there in 5?

How many are left over?

How many 4s are there in 11?

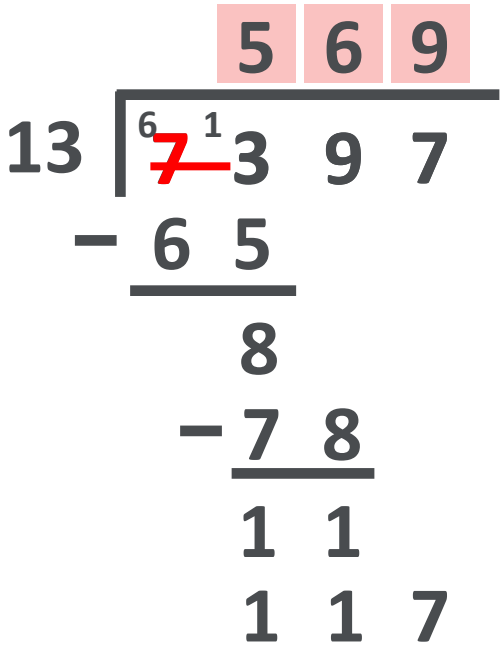
How many are left over?

How many 4s are there in 32?

Great!

Long Division Formal Algorithm

4 - Digit



Let’s start by dividing 73 by 13 as they are both a 2 digit number.

How many 13s are there in 73?

Write 5 above the 3 and write 65 below the 73.

What is 73 minus 65?

Now drop down the 9.

How many 13s are there in 89?

Write 6 above the 9 and 78 below the 89.

What is 89 minus 78?

Now drop down the 7.

How many 13s are there in 117?

Write 9 above the 7 and there is your final answer!

© Templateswise.com

Your turn

a) **84 ÷ 6**

b) 670 ÷ 5

c) 2456 ÷ 4

d) 7956 ÷ 12

Answers

a) **84 ÷ 6** = 14

b) 670 ÷ 5 = 134

c) 2456 ÷ 4 = 614

d) 7956 ÷ 12 = 663

Division with Remainders

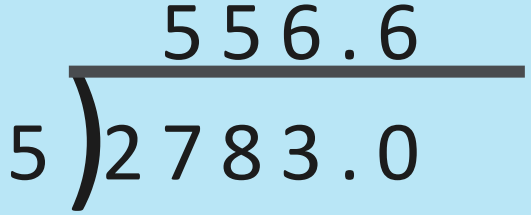
Sometimes when dividing there is something left over. It is called the **remainder.**

How can the remainder in this calculation be shown?

$$5\overline{)2783}$$

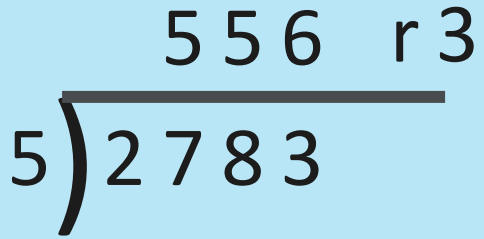
Calculate this division and think about the different ways you could show the remainder in your answer.

Division with Remainders



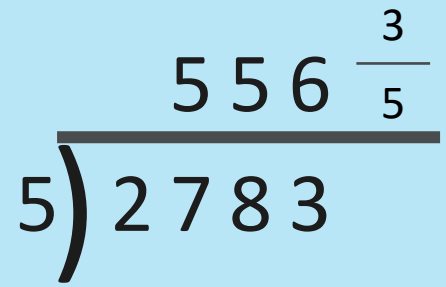
Answer as a decimal

Accurate and appropriate when using measures.



Answer with a “remainder”

Simplest way to present the answer. Good way to express answer if dividing a discreet number of objects into groups.

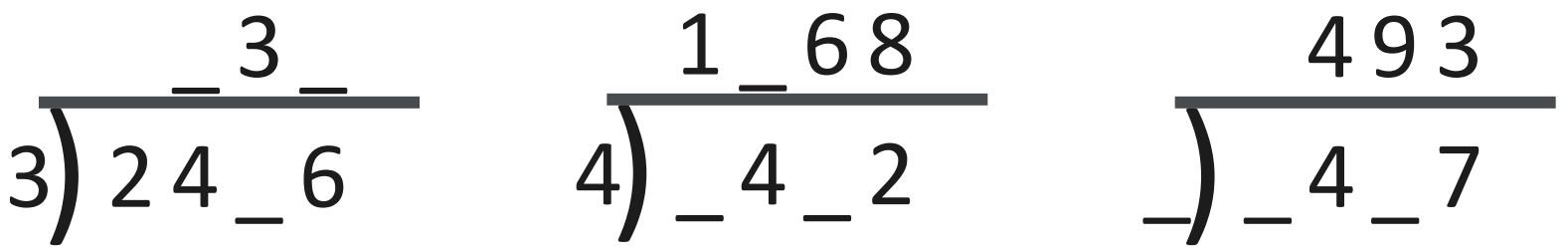


Answer as a fraction

Accurate. Less appropriate with large numbers or discreet number of objects.

Missing Numbers

Complete this calculations by finding the missing numbers.



Missing Numbers - Answers

Complete this calculations by finding the missing numbers.

$$3\overline{)2496} = 832$$

$$4\overline{)5472} = 1368$$

$$9\overline{)4437} = 493$$

BLUE

1. Solve these division questions using a formal algorithm:

a) 24 ÷ 4 =
b) 22 ÷ 11 =
c) 15 ÷ 5 =
d) 30 ÷ 3 =
e) 12 ÷ 4 =
f) 52 ÷ 2 =
g) 70 ÷ 2 =
h) 100 ÷ 5 =

2. Solve these division questions using a formal algorithm and show the remainder.

a) 41 ÷ 2 =
b) 75 ÷ 4 =
c) 142 ÷ 3 =
d) 257 ÷ 8 =
e) 399 ÷ 9 =

3. Answer the following questions:

a) A crate holds 72 bottles. How many packs of 6 bottles will be in each crate?
b) A teacher asks some children to organize a box of 37 rings by hanging them in threes on some hooks. How many hooks are needed?
c) Forty-six pieces of apple are shared equally among 9 children. How many pieces of apple do each receive?
d) In an office, there are 8 desks. A pack of 35 sets of sticky notes need sharing equally among the desks. How many sets of sticky notes are on each desk?

RED

1. Solve these division questions using a formal algorithm:

a) 24 ÷ 6 =
b) 21 ÷ 3 =
c) 75 ÷ 5 =
d) 39 ÷ 3 =
e) 180 ÷ 30 =
f) 60 ÷ 12 =
g) 240 ÷ 20 =
h) 4529 ÷ 7 =
i) 2244 ÷ 4 =
j) 4173 ÷ 13 =

2. Solve these division questions using a formal algorithm and show the remainder.

a) 75 ÷ 4 =
b) 257 ÷ 8 =
c) 399 ÷ 9 =
d) 439 ÷ 7 =
e) 4593 ÷ 8 =

Answer the following questions:

a) 105 books are arranged onto some shelves. There are fifteen books on each shelf. How many shelves are used?
b) A pencil factory makes 463 pencils in one hour, but 32 are found to be faulty. The pencils are sold in packs of 12. How many packs will be filled by the non-faulty pencils?
c) A grocery store has 189 baking potatoes. The grocer puts 75 baking potatoes out individually and bags the rest of the potatoes into packs of 6. How many packs of 6 does the grocer make?
d) Bananas are sold in packs of five. How many complete packs of five bananas can be made from 136 bananas?

GREEN

1. Solve these division questions using a formal algorithm:

a) 240 ÷ 20 =
b) 1010 ÷ 10 =
c) 2244 ÷ 4 =
d) 3816 ÷ 6 =
e) 4529 ÷ 7 =
f) 4173 ÷ 13 =
g) 6576 ÷ 16 =
h) 7201 ÷ 19 =
i) 6194 ÷ 38 =
j) 7224 ÷ 84 =

2. Solve these division questions using a formal algorithm and show the remainder as a one decimal place.

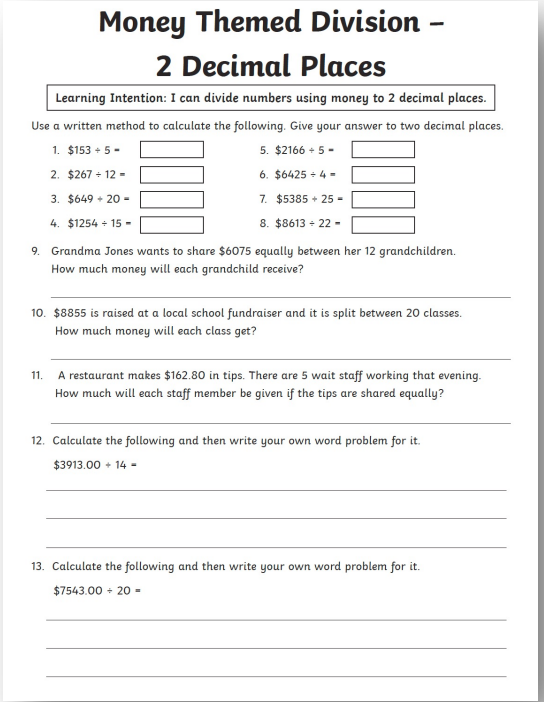
a) 439 ÷ 7 =
b) 4593 ÷ 8 =
c) 3230 ÷ 9 =
d) 5594 ÷ 17 =
e) 8492 ÷ 56 =

Answer the following questions:

a) A toy warehouse has 156 packs of 3 cars. The cars are to be re-boxed in packs of 5. How many packs of 5 can be made from these cars?
b) A sports trust organizes a soccer competition. 23 teams of 11 players enter, and 176 individual players who want to be made into new teams. If all the individual players are made into new teams of 11 players, how many teams will play in the competition?
c) Marbles are sold in bags of 25. A marble machine produces 1892 marbles per hour. How many bags of 25 marbles can be filled from the marbles made by this marble machine in six hours?
d) A sports store has 45 boxes of tennis balls, each with 3 tennis balls. It also has 129 tennis balls which are put into boxes of 3 tennis balls. How many boxes are there altogether?

Extension Task

Complete the *'Money Themed Division'* worksheet from the School website.



Money Themed Division – 2 Decimal Places

Learning Intention: I can divide numbers using money to 2 decimal places.

Use a written method to calculate the following. Give your answer to two decimal places.

1. $153 ÷ 5 =
2. $267 ÷ 12 =
3. $649 ÷ 20 =
4. $1254 ÷ 15 =
5. $2166 ÷ 5 =
6. $6425 ÷ 4 =
7. $5385 ÷ 25 =
8. $8613 ÷ 22 =

9. Grandma Jones wants to share $6075 equally between her 12 grandchildren. How much money will each grandchild receive?

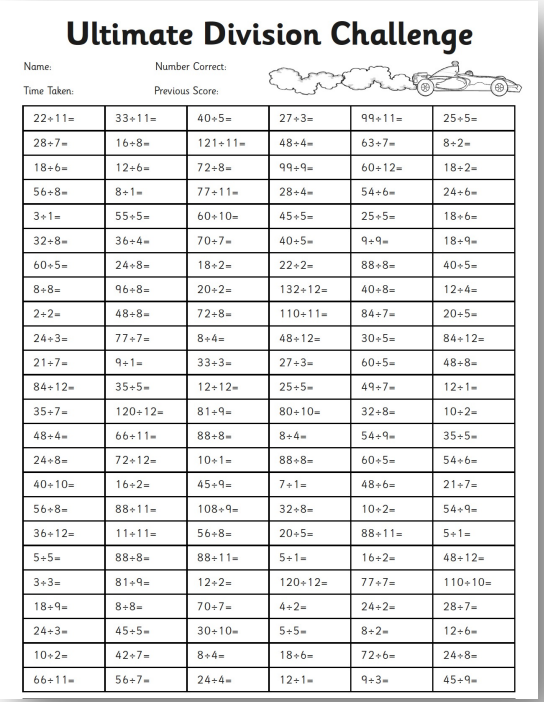
10. $8855 is raised at a local school fundraiser and it is split between 20 classes. How much money will each class get?

11. A restaurant makes $162.80 in tips. There are 5 wait staff working that evening. How much will each staff member be given if the tips are shared equally?

12. Calculate the following and then write your own word problem for it.
$3913.00 ÷ 14 =

13. Calculate the following and then write your own word problem for it.
$7543.00 ÷ 20 =

Additional Task



Ultimate Division Challenge

Name: Number Correct:

Time Taken: Previous Score:

22÷11=	33÷11=	40÷5=	27÷3=	99÷11=	25÷5=
28÷7=	16÷8=	121÷11=	48÷4=	63÷7=	8÷2=
18÷6=	12÷6=	72÷8=	99÷9=	60÷12=	18÷2=
56÷8=	8÷1=	77÷11=	28÷4=	54÷6=	24÷6=
3÷1=	55÷5=	60÷10=	45÷5=	25÷5=	18÷6=
32÷8=	36÷4=	70÷7=	40÷5=	9÷9=	18÷9=
60÷5=	24÷8=	18÷2=	22÷2=	88÷8=	40÷5=
8÷8=	96÷8=	20÷2=	132÷12=	40÷8=	12÷4=
2÷2=	48÷8=	72÷8=	110÷11=	84÷7=	20÷5=
24÷3=	77÷7=	8÷4=	48÷12=	30÷5=	84÷12=
21÷7=	9÷1=	33÷3=	27÷3=	60÷5=	48÷8=
84÷12=	35÷5=	12÷12=	25÷5=	49÷7=	12÷1=
35÷7=	120÷12=	81÷9=	80÷10=	32÷8=	10÷2=
48÷4=	66÷11=	88÷8=	8÷4=	54÷9=	35÷5=
24÷8=	72÷12=	10÷1=	88÷8=	60÷5=	54÷6=
40÷10=	16÷2=	45÷9=	7÷1=	48÷6=	21÷7=
56÷8=	88÷11=	108÷9=	32÷8=	10÷2=	54÷9=
36÷12=	11÷11=	56÷8=	20÷5=	88÷11=	5÷1=
5÷5=	88÷8=	88÷11=	5÷1=	16÷2=	48÷12=
3÷3=	81÷9=	12÷2=	120÷12=	77÷7=	110÷10=
18÷9=	8÷8=	70÷7=	4÷2=	24÷2=	28÷7=
24÷3=	45÷5=	30÷10=	5÷5=	8÷2=	12÷6=
10÷2=	42÷7=	8÷4=	18÷6=	72÷6=	24÷8=
66÷11=	56÷7=	24÷4=	12÷1=	9÷3=	45÷9=

Complete the *'Ultimate Division Challenge'* worksheet from the School website.