

1

Write the missing number to make this **division** correct.

[2017]

$$75 \div \boxed{10} = 7.5$$

[1 mark]

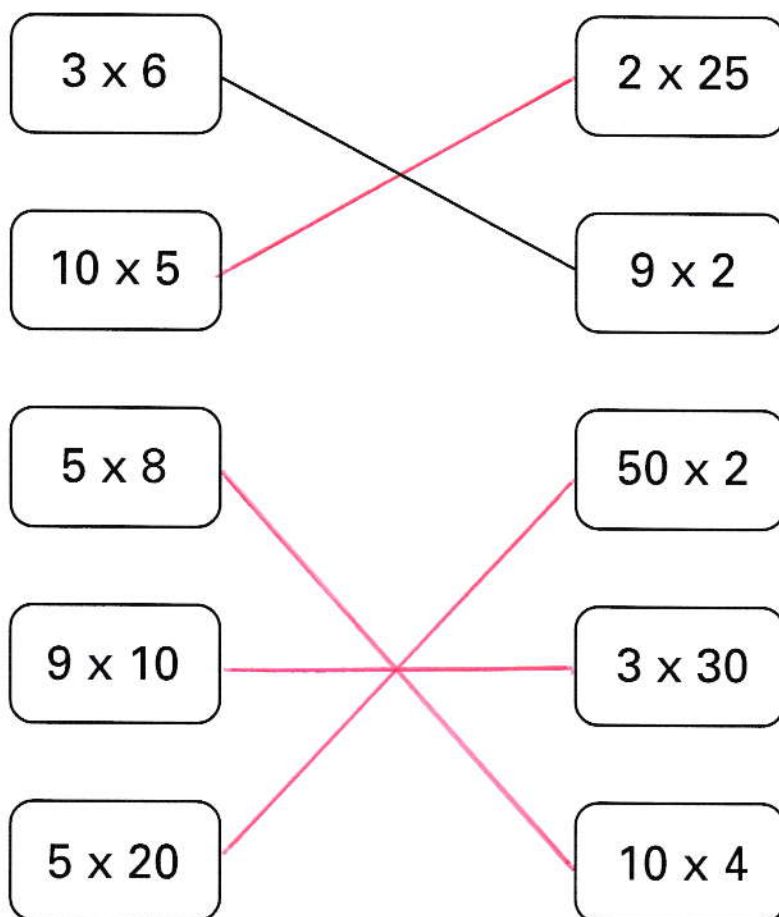
2

Each card on the left matches one on the right.

[2000]

Draw lines to match the cards which are **equal** in value.

One has been done for you.



[2 marks]

3

At a tournament there are 7 players in each team.

[2013]

There are 112 players altogether.

How many teams is this?

$$\begin{array}{r} 016 \\ 7 \overline{)112} \end{array}$$



16

[1 mark]

4

Here are six cards.

[2016S]

× 10

× 100

× 1000

÷ 10

÷ 100

÷ 1000

Use a card to complete each calculation.

$$5.3 \boxed{\div 10} = 0.53$$

$$5.3 \boxed{\times 1000} = 5300$$

$$5.3 \boxed{\div 100} = 0.053$$

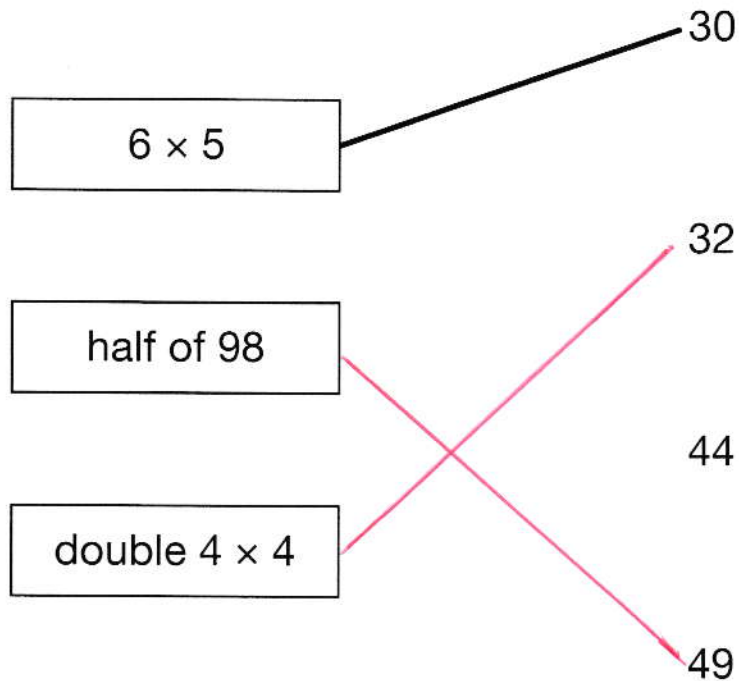
[2 marks]

5

Join each box to the correct number.

[2008]

One has been done for you.



[1 mark]

6

Write in the missing numbers.

[2002]



$$5 \times 70 = \boxed{350}$$

$$4 \times \boxed{50} = 200$$

[2 marks]

7Circle two different numbers which **multiply** together to make **1 million**.

[2000]



[1 mark]

8

[2017]

Circle the number that is **10 times** greater than nine hundred and seven.

→ 907

9,700

907

9,007

970

9,070

[1 mark]

9

[2017]

Write the missing numbers to make this **multiplication** grid correct.

		<div style="border: 1px solid black; padding: 2px; display: inline-block;">1ST</div>	
×		7	6
9		63	54
8		56	48

[1 mark]

10

[2013]

The number **20** goes in **two** of the squares of this multiplication grid.

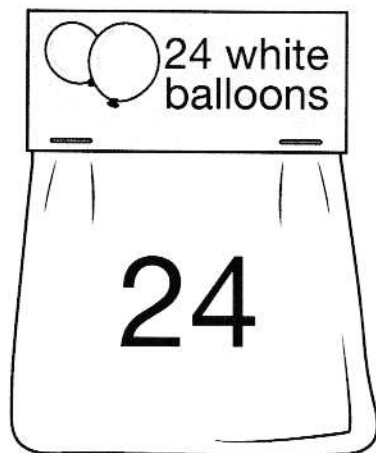
Tick (✓) the two squares where 20 goes.

×	1	2	3	4	5
1					
2					
3					
4					✓
5				✓	

[1 mark]

11

[2017]



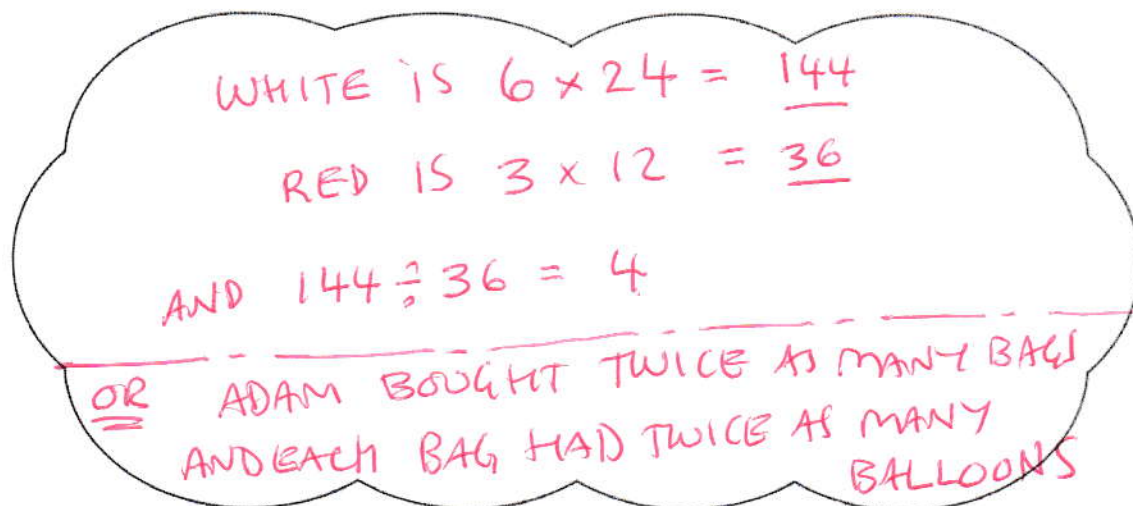
Adam buys **6** bags of white balloons.

Chen buys **3** bags of red balloons.

Adam says,

'I have four times as many balloons as Chen.'

Explain why Adam is correct.



[1 mark]

12

[2016]

Write the missing number.

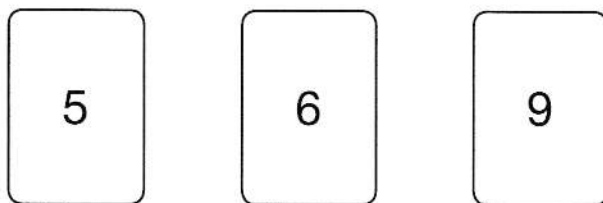
$$70 \div \boxed{20} = 3.5$$

[1 mark]

13

Chen uses these digit cards.

[2017]

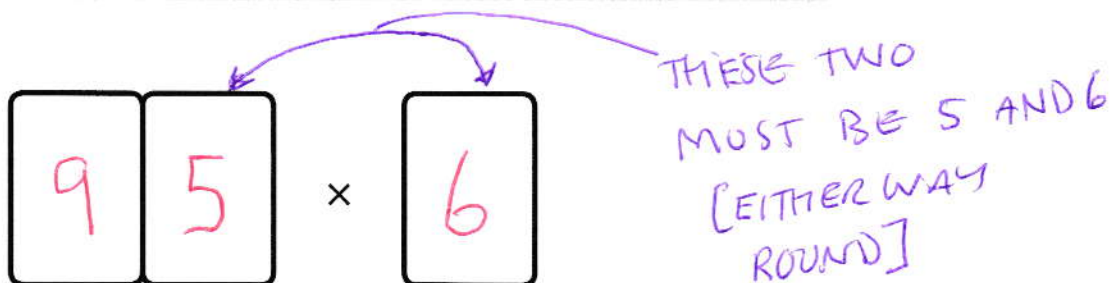


She makes a 2-digit number and a 1-digit number.

She multiplies them together.

Her answer is a **multiple of 10**

What could Chen's multiplication be?




[1 mark]

14

Write the **three** missing numbers in this multiplication grid.

[2014]

	×	8	5	7
4		32	20	28
5		40	25	35
3		24	15	21

[2 marks]

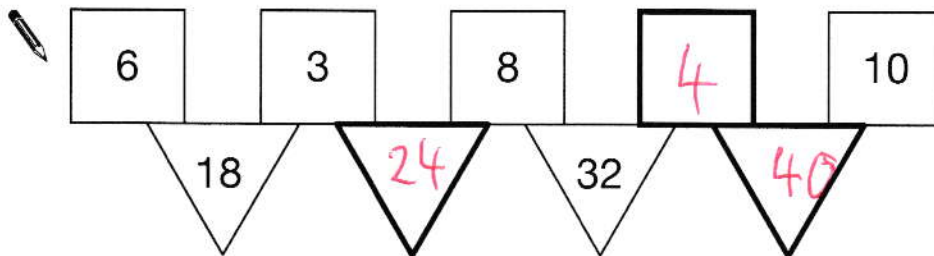
15

In this diagram the rule is

[2010]

***'to make the number in a triangle,
multiply the numbers in the two squares above it'.***

Write in the three missing numbers.



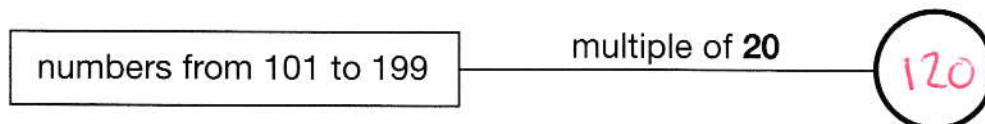
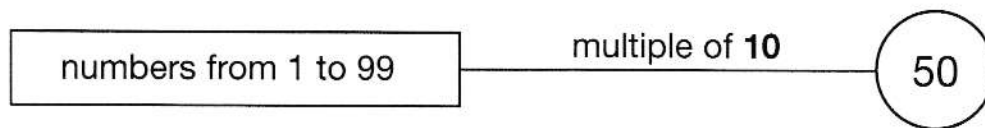
[1 mark]

16

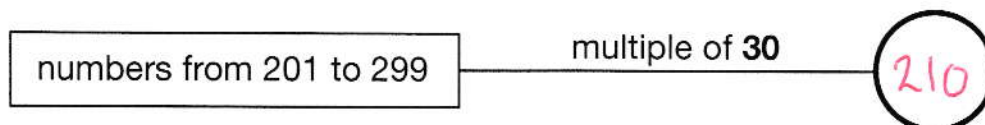
In the circles, write a multiple that belongs to each set.

[2016S]

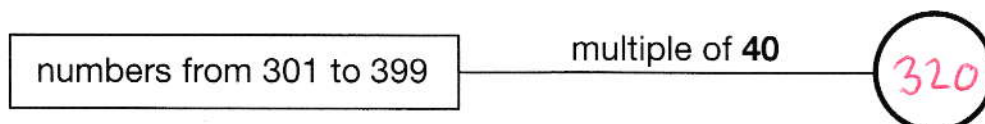
One has been done for you.



[ALSO 140, 160, 180]



[ALSO 240, 270]



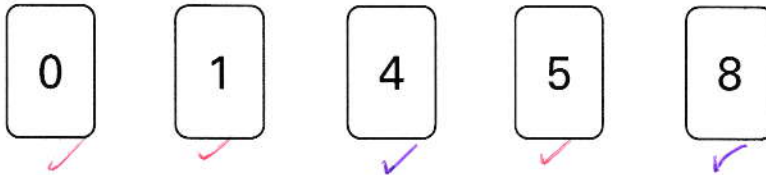
[ALSO 360]

[1 mark]

17

Here are five digit cards.

[2004]

Use **all** five digit cards to make this correct.

$$54 \times 2 = 108$$

[2 marks]

18

Write the missing number.

[2013]

$$187 \div 11 = 17$$

$$\begin{array}{r} 17 \\ \times 11 \\ \hline 17 \\ 170 \\ \hline 187 \end{array}$$

[1 mark]

19

Write in the missing numbers in this multiplication grid.

[2004]

\times	5	9	8
4	20	36	32
7	35	63	56
6	30	54	48

[1 mark]

20

Write in the missing digits to make this correct.

[2001]

Handwritten solution for question 20:

The multiplication problem is:

$$\begin{array}{r} \boxed{3} \quad 4 \quad \boxed{2} \\ \times \quad 6 \\ \hline 2 \quad 0 \quad 5 \quad 2 \\ \hline \end{array}$$

Handwritten notes:

- A pencil icon is drawn to the left of the problem.
- The digits 3 and 2 in the top row are boxed in red.
- Green arrows point from the boxed 3 to the calculation $2 \times 6 = 12$ and from the boxed 2 to $7 \times 6 = 42$.
- A purple arrow points from the 4 in the top row to the 4 in the bottom row.
- Purple text says "CARRY IS 124" with an arrow pointing to the 4 in the bottom row.
- Red numbers 2 and 1 are written below the 0 and 5 in the bottom row, respectively.
- Green text at the bottom right says "BOTH GIVE '2' IN UNITS" with an arrow pointing to the 2 in the bottom row.

[1 mark]

21

Circle two numbers that multiply together to equal 1 million.

[2016]

200 2,000 5,000 50,000

[1 mark]

22

Here are five number cards.

[2011]

0.47 10 100 1000 4.07

✓ ✓ ✓ ✓ ✓

Use four of the cards to complete these calculations.

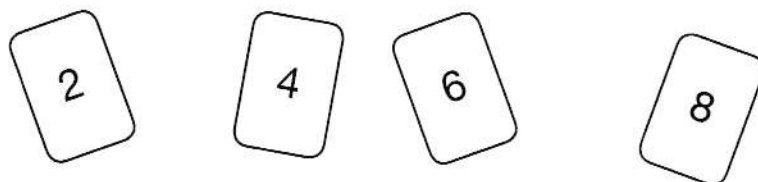
$47 \div \boxed{100} = \boxed{0.47}$

$\boxed{4.07} \times \boxed{10} = 40.7$

[2 marks]

23

[2010]



Use all four digit cards to make this number sentence correct.

$$\begin{array}{|c|c|} \hline 8 & 4 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 6 & 2 \\ \hline \end{array} > 5000$$

8 AND 6 GO IN THE TENS, TO GET BIGGEST ANSWER [1 mark]

24

[2002]

Write in the **two** missing digits.

$$\begin{array}{|c|c|} \hline 5 & 0 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 6 & 0 \\ \hline \end{array} = \begin{array}{|c|c|c|c|} \hline 3 & 0 & 0 & 0 \\ \hline \end{array}$$

[1 mark]

25

[2016S]

Write the two missing digits to make this **long multiplication** correct.

$$\begin{array}{r} 4 \boxed{1} \\ \times \boxed{2} 6 \\ \hline 2 4 6 \\ 8 2 0 \\ \hline 1 0 6 6 \end{array}$$

[1 mark]

26

Complete these calculations.

[2013]



$$15 \times 100 = \boxed{1500}$$

$$\boxed{150} \times 10 = 1500$$

$$\boxed{15000} \div 100 = 150$$

$$150 \div 10 = \boxed{15}$$

[2 marks]

27

Leila knows that

$$65 \times 3 = 195$$

[2000]

Explain how she can **use this information** to find the answer to this multiplication:

$$165 \times 3$$

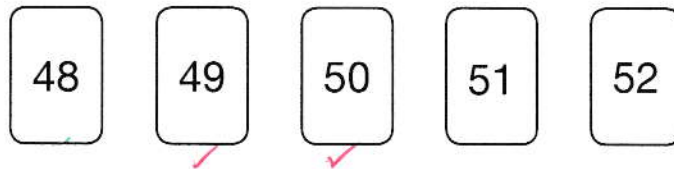
$$\begin{aligned}
 &65 \times 3 = 195 \quad \text{AND} \quad 100 \times 3 = 300 \\
 \text{so } &165 \times 3 = 195 + 300 \\
 &= \underline{\underline{495}}
 \end{aligned}$$


[1 mark]

28

Here are five number cards.

[2015]

Use each card **once** to make every statement below correct.

 51 is a multiple of 3

52 is a multiple of 4

50 is a multiple of 5

48 is a multiple of 6

49 is a multiple of 7

IST {


[2 marks]

29

Three single-digit numbers multiply to make 504

[2012]

Write the missing numbers.

 9 × 8 × 7 = 504

IST →

DIVISIBLE BY 9 BECAUSE
SUM OF DIGITS IS DIVISIBLE BY 9. [1 mark]

30

[2003]

Write what the **three** missing digits could be in this calculation.

$$\begin{array}{|c|c|} \hline 6 & 3 \\ \hline \end{array} \times \begin{array}{|c|} \hline 6 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 3 & 7 & 8 \\ \hline \end{array}$$

[ALSO 54×7 OR 42×9]

[1 mark]

31

[2004]

Use the digits **2, 3** and **4** once to make the multiplication which has the **greatest product**.

$$\begin{array}{|c|c|} \hline 4 & 2 \\ \hline \end{array} \times \begin{array}{|c|} \hline 3 \\ \hline \end{array}$$

LARGEST \rightarrow

\leftarrow SECOND LARGEST

[1 mark]

32

[2015]

Write the missing number in each calculation.



$$25 \div \begin{array}{|c|} \hline 7 \\ \hline \end{array} = 3 \text{ remainder } 4$$

$$\begin{array}{l} 25 - 4 = 21 \\ 21 \div 7 = 3 \end{array}$$

$$35 \div \begin{array}{|c|} \hline 8 \\ \hline \end{array} = 4 \text{ remainder } 3$$

$$\begin{array}{l} 35 - 4 = 32 \\ 32 \div 8 = 4 \end{array}$$

[1 mark]

33

[2011]

Two 2-digit numbers multiply to make 176

Write the two missing numbers.

$$\begin{array}{|c|c|} \hline 1 & 6 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 1 & 1 \\ \hline \end{array} = 176$$

[1 mark]

34

Write the two missing digits in this multiplication.

[2013]



$$\boxed{2} \boxed{9} \times \boxed{6} \boxed{9} = 2001$$

[I KNEW THAT $30 \times 70 = 2100$, AND THAT 29×69 WOULD BE LESS, AND IT WORKED!]

[1 mark]

35

Dev says,

[2011]

'When you halve any number that ends in 8 the answer always ends in 4.'



Is he correct?

Circle **Yes** or **No**.Yes / **No**

Explain how you know.

BECAUSE IF YOU HALVE 18
YOU GET 9.

[1 mark]

36

Write the missing number to make this calculation correct.

[2010]



$$11 \times \boxed{101} = 1111$$

$$\begin{array}{r} 0101 \\ 11 \overline{) 1111} \\ \underline{11} \\ 0000 \end{array}$$

[1 mark]

37

Nisha says,

[2008]

**'When you halve any even number,
the answer is always an odd number'.**



Is she correct?
Circle **Yes** or **No**.

 Yes / **No**

Explain how you know.

BECAUSE HALF OF 4 IS 2


[1 mark]

38

Fill in the three missing whole numbers in this calculation.

[2014]

Each number is less than 10

 $\overset{\text{[1ST]}}{\boxed{3}} \times \overset{\text{[2ND]}}{\boxed{5}} \times \boxed{7} = 105$

[2ND]

$$105 \div 3 = 35$$

$$\begin{array}{r} \downarrow \downarrow \\ 5 \times 7 \end{array}$$

[HAS A MULTIPLE OF 3 BECAUSE DIGITS ADD TO A MULTIPLE OF 3] [1 mark]

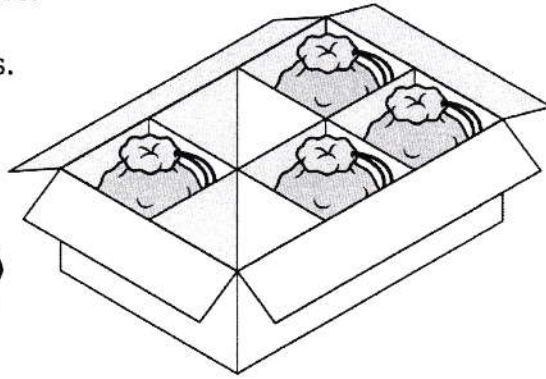
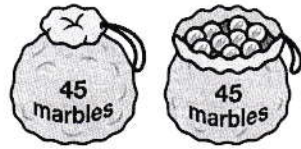
39

A toy shop orders 11 boxes of marbles.

[2016]

Each box contains 6 bags of marbles.

Each bag contains 45 marbles.



How many **marbles** does the shop order in total?

Show your method

$$\begin{array}{r}
 11 \\
 \times 6 \\
 \hline
 66
 \end{array}
 \quad
 \begin{array}{r}
 66 \\
 \times 45 \\
 \hline
 330 \quad (\times 5) \\
 2640 \quad (\times 40) \\
 \hline
 2970
 \end{array}$$

2970

[2 marks]

40

$$5,542 \div 17 = 326$$

[2016]

Explain how you can use this fact to find the answer to 18×326

BECAUSE 17×326 MUST BE 5542.

SO 18×326 MUST BE

$$\begin{array}{r}
 5542 \\
 + 326 \\
 \hline
 5868
 \end{array}$$

[1 mark]