

Booklet 5 Answer Key

Q1)

$\begin{array}{r} 113 \text{ R3} \\ 5 \overline{)568} \\ \underline{- 5} \\ 06 \\ \underline{- 5} \\ 18 \\ \underline{- 15} \\ 3 \end{array}$	$\begin{array}{r} 249 \\ 2 \overline{)498} \\ \underline{- 4} \\ 09 \\ \underline{- 8} \\ 18 \\ \underline{- 18} \\ 0 \end{array}$	$\begin{array}{r} 13 \text{ R2} \\ 8 \overline{)106} \\ \underline{- 8} \\ 26 \\ \underline{- 24} \\ 2 \end{array}$	$\begin{array}{r} 64 \\ 3 \overline{)192} \\ \underline{- 18} \\ 12 \\ \underline{- 12} \\ 0 \end{array}$
$\begin{array}{r} 159 \\ 4 \overline{)636} \\ \underline{- 4} \\ 23 \\ \underline{- 20} \\ 36 \\ \underline{- 36} \\ 0 \end{array}$	$\begin{array}{r} 91 \text{ R1} \\ 8 \overline{)729} \\ \underline{- 72} \\ 09 \\ \underline{- 8} \\ 1 \end{array}$	$\begin{array}{r} 105 \\ 7 \overline{)735} \\ \underline{- 7} \\ 03 \\ \underline{- 0} \\ 35 \\ \underline{- 35} \\ 0 \end{array}$	$\begin{array}{r} 145 \text{ R3} \\ 6 \overline{)873} \\ \underline{- 6} \\ 27 \\ \underline{- 24} \\ 33 \\ \underline{- 30} \\ 3 \end{array}$

Q2) Use long division to complete the table.

Number	Is the number divisible by 2?	Is the number Odd or even?
28	Yes	Even
63	No	Odd
90	yes	even

Q3) Without dividing, circle the number which is divisible by 2.

347 , 246 , 459 , 65 , 441 , 534 , 222

Divisibility Rule: All even numbers are divisible by 2

Q4) Use long division to complete the table.

Number	Is the number divisible by 5?	What is the digit in the ones place?
75	Yes	5
26	No	6
50	yes	0

Q5) Without dividing, circle the number which is divisible by 5.

674 , 546 , 890 , 785 , 445 , 252 , 220

Divisibility Rule: if the number in the ones is ZERO or FIVE then it is divisible by 5

Q6) Use long division to complete the table.

Number	Is the number divisible by 10?	What is the number in the ones?
380	Yes	0
550	Yes	0
909	no	9

Q7) Without dividing circle the number which is divisible by 10.

254 , 570 , 800 , 679, 445 , 716 , 850

Divisibility Rule: if the number in the ones is ZERO then it is divisible by 10

Q8) Use long division to complete the table.

Number	Is the number Divisible by 100?	What is the number In the ones?	What is the number In the tens?
200	Yes	0	0
420	No	0	2
56000	Yes	0	0

Divisibility Rule: if the numbers ends with (00) , its divisible by 100

Q9) Use long division to complete the table.

Number	Is the number divisible by 3?	What is the sum of the digits?	Is the sum of the digits divisible by 3?
64	No	10	NO
600	Yes	6	Yes
513	Yes	9	Yes

Q10) Without dividing circle the number which is divisible by 3.

897 , 111 , 863 , 956 , 445 , 222 , 850

Divisibility Rule: if the sum of the digits is a multiple of 3 then the number is divisible by 3

Q11) Use long division to complete the table.

Number	Is the number divisible by 2?	Is the number divisible by 3?	Is the number divisible by 6?
64	Yes	No	No
672	Yes	No	Yes
564	yes	Yes	Yes

Q12) Without dividing circle the number which is divisible by 6.

171 , 252 , 524 , 960 , 636 , 220 , 850

Divisibility Rule: if the number is even and divisible by 3 then it is divisible by 6

Q13) Fill in the table below.

Number	The sum of the digits	Is the sum of the digits divisible by 9?	Is the number divisible by 9?
97	16	No	No
1008	9	Yes	Yes
5655	21	No	No
8946	27	Yes	Yes

Divisibility Rule: the number is divisible by 9 , if the sum of the digits is divisible by 9

Q14) Circle all the numbers that are divisible by 9 in the following:

41, 54 , 7992 , 34 , 27 , 441 , 809 , 222

Q15) Look at these numbers:

8 514

3 700

7 675

8 765

5 555

2 369

3 736

54 111

63 408

1 245

a) Which numbers are divisible by 2 ?

___**8514**___ ___**3700**___ ___**3736**___ ___**63408**___

b) Which numbers are divisible by 3 ?

___**8514**___ ___**54111**___ ___**63408**___ ___**1245**___

c) Which numbers are not divisible by 5 ?

___**8514**___ ___**2369**___ ___**3736**___ ___**54111**___ ___**63408**___

d) Which number is divisible by 10 ?

___**3700**___

e) Which number is divisible by both 5 and 10 ?

___**3700**___

f) Which numbers are divisible by 4 ?

___**3736**___ ___**63408**___

g) Which numbers are divisible by 6 ?

___**63408**___ ___**8514**___

Q16)

Divisor	Poetry	Divisible (Y/N)	Why/Why Not?
<u>1</u>	If it's a whole number, you're done, It's divisible by one .	YES	All whole numbers are divisible by 1.
<u>2</u>	If it's even, it's true It's divisible by two .	YES	5622 is EVEN.
<u>3</u>	Add the digits to see If it's divisible by three .	YES	$5 + 6 + 2 + 2 = 15$. $15 \div 3 = 5$ (NO remainder!).
<u>4</u>	Divide the last two digits by four, And you'll get four for sure.	NO	$22 \div 4 = 5 \text{ r}2$. There IS a remainder so 5622 is NOT divisible by 4.
<u>5</u>	If it ends with five or zero, It makes five a hero.	NO	5622 does NOT end in 5 or 0 (there is not a 5 or 0 in the ones place).
<u>6</u>	If you got two and three You get six for free!	YES	5622 IS divisible by BOTH 2 AND 3!
<u>9</u>	Add the digits, that's fine To check on the nine .	NO	$5 + 6 + 2 + 2 = 15$. $15 \div 9 = 1 \text{ r}6$ (There IS a Remainder).
<u>10</u>	A zero at the end And we'll feel good about ten .	NO	5622 does NOT end in a 0 (there is not a 0 in the ones place).

Q17)

	2	3	4	5	6	9	10	100
1368	yes	yes	yes	/	yes	yes	/	/
3636	yes	yes	yes	/	yes	yes	/	/
514	yes	/	/	/	/	/	/	/
51114	yes	yes	/	/	Yes	/	/	/
3700	yes	/	Yes	/	/	/	Yes	Yes
63408	yes	yes	Yes	/	Yes	/	/	/
7675	/	/	/	Yes	/	/	/	/
5555	/	/	/	Yes	/	/	/	/
18	yes	Yes	/	/	Yes	Yes	/	/
12450	yes	yes	/	Yes	yes	/	yes	/

Which numbers can be divided by 2, 10 and 5 ?

_____ 3700 and 12450 _____

Q18)

a) 718 4

divisible by 2

b) 2174_0_

divisible by 2 and 5

c) 4163_4_

divisible by 6

d) 81543_0_

divisible by 6 and 10

e) 643_2_

divisible by 4

f) 182_7_

divisible by 9

g) 454_5_

divisible by 9 and 5

Q19)

Here are four digits.

0

1

2

4

Write a **different** digit in each box so that each number is divisible by 4

28

0

430

4

55

2

1

1

 6