Sept. 12, 2016

1) 18 + 7 25
2) 22 - 11 11
3) ½ Of 16 8
4) 4 000 ÷ 10 400
5) 45 ÷ 5 9
6) 62 X 10 620
7) 500 X 2 1000
8) 4 X 25 100
9) 303 ÷ 3 101
10) 200 ÷ 4 50

8

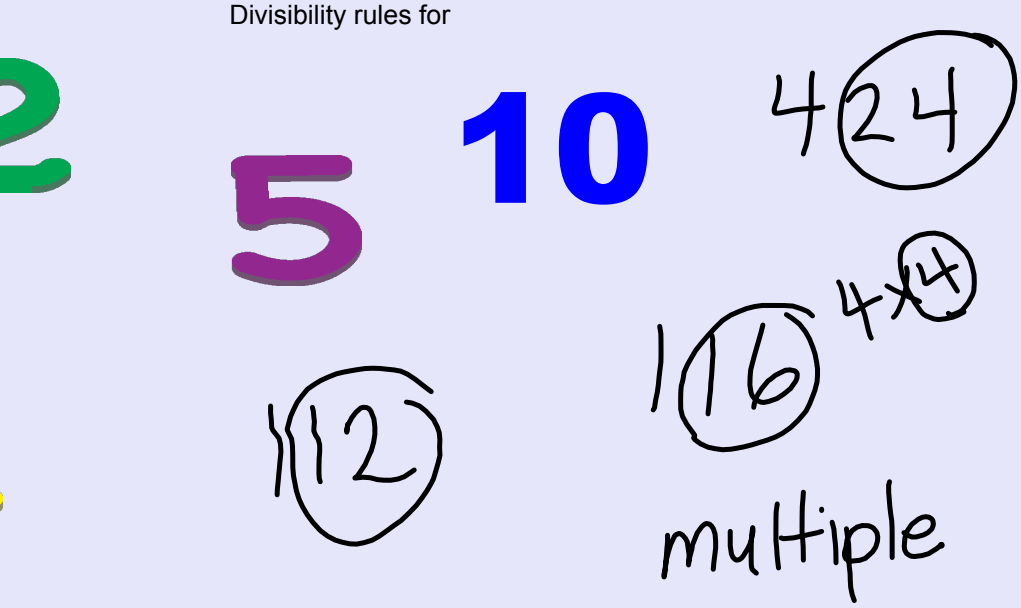
Divisibility rules for

2

5

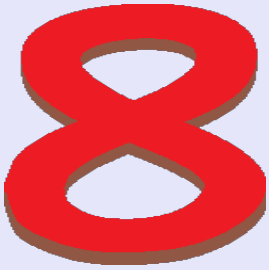
10

4

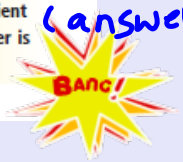


A number that is divisible by 8 is also divisible by 2 and by 4 because $8 = 2 \times 4$.
So, a number divisible by 8 is even.

872 ~~643~~ ~~142~~ 324



Another way to check if a number is divisible by 8 is to divide by 4. If the quotient is even, then the number is divisible by 8.



(answer when you ÷)

Let's check that on a calculator!

Practice

1. Which numbers are divisible by 2? By 5?
How do you know?

a) 106 b) 465 c) 2198
d) 215 e) 1399 f) 4530

2. Explain why a number with 0 in the ones place is divisible by 10.

3. Which numbers are divisible by 4? By 8? By 10?
How do you know?

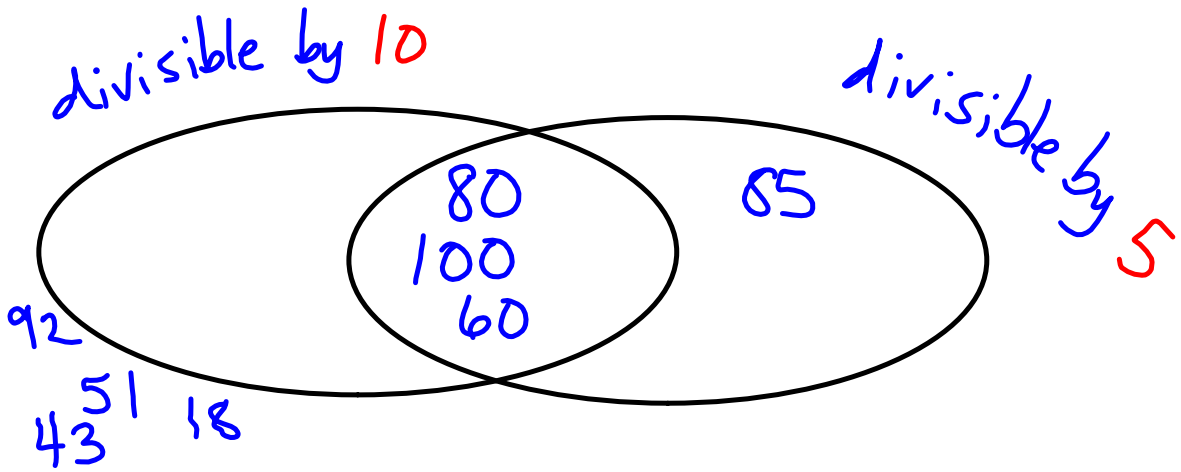
a) 212 b) 512 c) 5450
d) 380 e) 2132 f) 12 256

4. Maxine and Tony discuss divisibility.
Maxine says, "260 is divisible by 4 and by 5.
$4 \times 5 = 20$, so 260 is also divisible by 20."
Tony says, "148 is divisible by 2 and by 4.
$2 \times 4 = 8$, so 148 is also divisible by 8."
Are both Maxine and Tony correct? Explain your thinking.

Tony is correct
Look at rule!!!

4 | 8 | 10

even



~~43~~ ~~92~~ ~~60~~

~~85~~ ~~100~~ ~~18~~

~~80~~ ~~51~~

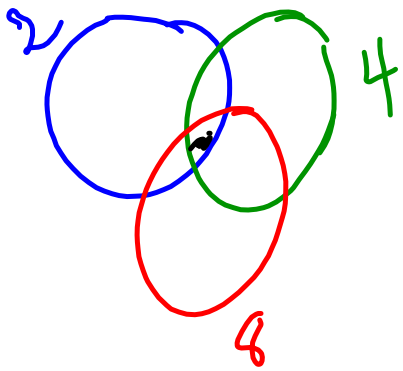
6. Assessment Focus

a) Use the divisibility rules for 2, 4, and 8 to sort these numbers.

1046	322	460	1784	28
54	1088	224	382	3662

b) Draw a Venn diagram with 3 loops.
Label the loops: "Divisible by 2," "Divisible by 4," and "Divisible by 8"
Explain why you drew the loops the way you did.
Place the numbers in part a in the Venn diagram.
How did you decide where to place each number?

c) Find and insert 3 more 4-digit numbers in the Venn diagram.



Master 1.22

Extra Practice 1

Lesson 1.1: Patterns in Division

1. Which numbers are divisible by 4? By 5?
How do you know?

a) 90	**b)** 134	**c)** 395
d) 1724	**e)** 30	**f)** 560
g) 3015	**h)** 74	**i)** 748

2. Write a 5-digit number that is divisible by 8.
How did you choose the number?

3. A number is missing the tens digit.
The number is 51 3□6.
What could the tens digit be if the number is divisible by 2? By 4? By 8?

4. Which numbers are divisible by 4? By 8? By 10?
How do you know?

a) 80	**b)** 216	**c)** 132
d) 350	**e)** 2160	**f)** 2092

5. Andrew and Matthew discuss divisibility.
Andrew says, "280 is divisible by 5 and by 8.
$5 \times 8 = 40$, so 280 is also divisible by 40."
Matthew says, "296 is divisible by 4 and by 8.
$4 \times 8 = 32$, so 296 is also divisible by 32."
Are both Andrew and Matthew correct?
Explain your thinking.

6. Explain why a number with 0 in the ones place is divisible by 5.

Homework - Question 1 and 2 only