



Warm up Grade 6



Date: _____

1) Compare using < or >

a) $-7 > -12$
Bigger

b) $0 > -6$
Bigger

c) $+5 > -8$
Bigger

2) What is the lowest common multiple (LCM) between 3, 8, 12?

3 → 3, 6, 9, 12, 15, 18, 21, **24**, 27, 30

8 → 8, 16, **24**, 32, 40, 48, 56, 64, 72, 80

12 → 12, **24**, 36, 48, 60, 72, 84, 96, 108, 120

LCM (3, 8, 12) = 24
 + 3 2 3 0
 + 3 0 3 3 0
 + 1 2 0 0 0

Homework Solutions #1a,b,c,d #9
 Page 56-58 #2a,b,c,d #10
 #4a,b,c,d #13
 #5a,b #14
 #6a #8

1) first 10 multiples of

a) 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

b) 5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50

→ c) 8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

→ d) 7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70

2) First 6 multiples of

→ a) 12: 12, 24, 36, 48, 60, 72

→ b) 11: 11, 22, 33, 44, 55, 66

c) 16: 16, 32, 48, 64, 80, 96

d) 15: 15, 30, 45, 60, 75, 90

4) Which #s 21, 24, 45, 30, 42, 60, 84 multiples of?

a) 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 69, 72, 75, 78, 81, 84, ...

b) 12: 12, 24, 36, 48, 60, 72, 84
 12×2 12×5 12×7

c) 7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84
 7×3 7×6 7×12

d) 15: 15, 30, 45, 60, 75, 90

6a) 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60
 4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68
 6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90

12, 36, 60 are 3 common multiples of 3, 4, 6

8) 8:00 pm

Every 6min

8:06

8:12

8:18

8:24

8:30

8:36

8:42

8:48

8:54

9:00

8) 8:00 pm

Every 9min

8:09

8:18

8:27

8:36

8:45

8:54

9:03

9:12

9:17

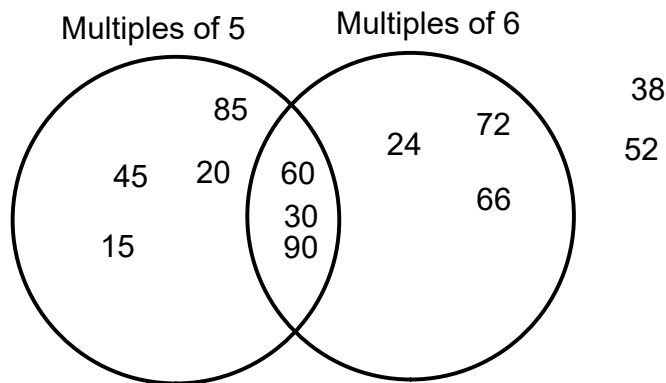
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Pg 57 #9 #10 #13 #14

Spider 9) 8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

Ants 6: 6, 12, 18, 24, 30, 36, 48, 54, 60, 66, 72, 78, 84, 90

- 10) Draw a large Venn diagram with 2 overlapping loops.
 Label the loops Multiples of 5 and Multiples of 6
 Sort these numbers in the Venn diagram:
 45, 24, 52, 30, 66, 15, 85, 90, 72, 60, 20, 38



- 13) Common multiples of 8 and 3

8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104

3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60

63, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102

- a) 32 is not in both list it is NOT a common multiple
- b) 72 is in both list so it is a common multiple
- c) 48 is in both list so it is a common multiple
- d) 54 is not in both list it is NOT a common multiple
- e) 66 is not in both list it is NOT a common multiple
- f) 96 is in both list so it is a common multiple

- 14) Pack of 5 (Patties)

5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80,
 85, 90, 95, 100, 105, 110, 115, 120, 125

Pack of 8 (buns)

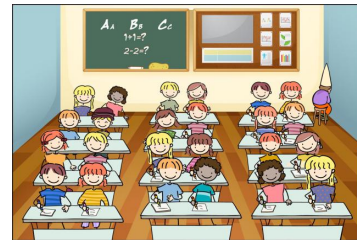
8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112,
120 128

24 packs of patties & 15 packs of buns

Ch.2 (Lesson 3: Exploring Multiples)

Specific Outcomes

- Demonstrate an understanding of place value for numbers greater than one million. (6N1)
- Solve problems involving large numbers, using technology. (6N2)
- Demonstrate an understanding of factors and multiples by:
 - determining multiples and factors of numbers less than 100
 - identifying prime and composite numbers
 - solving problems involving multiples. (6N3)
- Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers). (6N9)

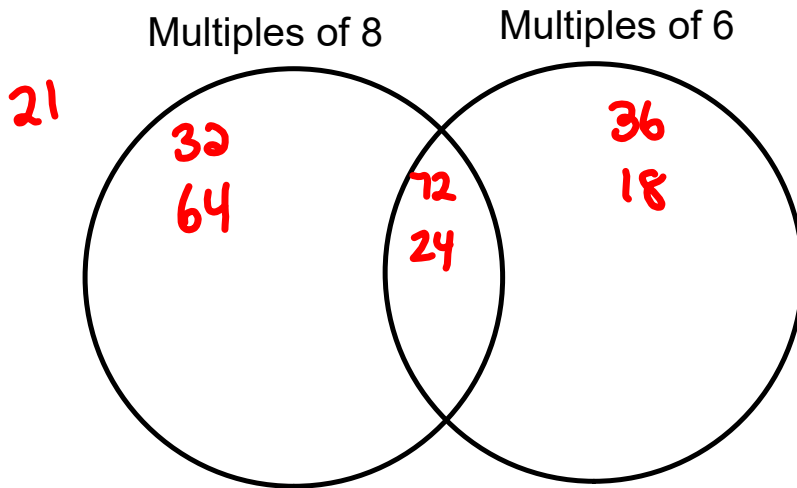


● Today

Draw a large Venn diagram with 2 overlapping loops.
 Label the loops **Multiples of 6** and **Multiples of 8**.
 Sort these numbers in the Venn diagram:

~~72, 30, 24, 18, 32, 64~~ 21

↑
 Biggest



Show your list over here

- | <u>mult 6</u> | <u>mult 8</u> |
|---------------|---------------|
| 6 | 8 |
| 12 | 16 |
| 18 | 24 |
| 24 | 32 |
| 30 | 40 |
| 36 | 48 |
| 42 | 56 |
| 48 | 64 |
| 54 | 72 |
| 60 | |
| 66 | |
| 72 | |

Class/Homework

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Continued from last day

~~#1a,b,c,d~~

#9

~~#2a,b,c,d~~

#10

~~#4a,b,c,d~~

~~#~~

#5a,b

#

#6a

#8

List multiples
of 6 →
8 →
Circle the
1st in
common

9)

Spiders 8 legs → 8, 16, 24, 32, 40... 3 spiders

Ants 6 legs → 6, 12, 18, 24 4 ants

Practice

You may use a hundred chart or number lines to model your solutions.

1. List the first 10 multiples of each number.

a) 2

b) 5

c) 8

d) 7

2. List the first 6 multiples of each number.

a) 12

b) 11

c) 16

d) 15

3. Which numbers below are multiples of 6?

What strategy did you use to find out?

36 70 66 42 54 27 120 81

4. Which of the numbers 21, 24, 45, 30, 42, 60, and 84 are multiples of:
- a) 3? b) 12? c) 7? d) 15?

5. Find the first 3 common multiples of each pair of numbers.
- a) 4 and 5
 - b) 7 and 4
 - c) 3 and 9
 - d) 10 and 15

6. Find the first 3 common multiples of each set of numbers.
Which is the least common multiple? Explain your work.
- a) 3, 4, and 6 b) 2, 3, and 4 c) 4, 5, and 10

7. Find all the common multiples of 8 and 9 that are less than 100.

8. Two TV movies start at 8:00 P.M.
One channel airs commercials every 6 min.
The other channel airs commercials every 9 min.
When will the two channels start commercial breaks at the same time?



9. A spider has 8 legs. An ant has 6 legs. There are a group of spiders and a group of ants. The groups have equal numbers of legs. What is the least number of spiders and ants in each group? Show your work.

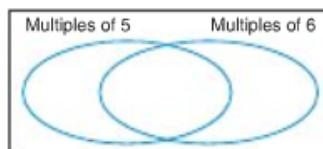


10. Make a large copy of this Venn diagram.

Sort these numbers.

45, 24, 52, 30, 66, 15, 85, 90, 72, 60, 20, 38

What can you say about the numbers in the overlap?



11. Taho plays shinny every 2 days. He plays lacrosse every 3 days. Suppose Taho plays shinny and plays lacrosse on October 1. What are the next 3 dates on which he will play shinny and play lacrosse? Explain how you know.



12. Find the first 2 common multiples of 36 and 48.

13. Which numbers are common multiples of 8 and 3?

How did you find out?

a) 32

b) 72

c) 48

d) 54

e) 66

f) 96

14. Veggie patties are sold in packages of 5.
Buns are sold in packages of 8.
You need about 125 veggie burgers for a school barbecue.
You do not want any patties or buns left over.
How many packages of each should you buy?
What strategy did you use to find out?

15. Kevin, Yone, and Miroki work part-time at the YMCA in Kamloops.
Kevin works every second day.
Yone works every third day.
Miroki works every fourth day.
Today, they worked together.
When will they work together again?
Explain how you know.

16. a) A group of friends get together to make friendship bracelets. A package of embroidery floss can be shared equally among 3, 5, or 6 friends with no strands left over. What is the least number of strands the package can contain?
- b) Suppose the package in part a could also be shared equally between 2 friends. Does this change your answer to part a? Why or why not?



17. A common multiple of two numbers is 64.
- How could you find the two numbers?
 - Is there more than one possible answer?
 - If your answer to part b is yes, find as many pairs of numbers as you can.

Integer questions for practice Solutions.notebook