Math 10

Lesson 1–1 Answers

Lesson Questions

Question 1

1 x 36
2 x 18
3 x 12
4 x 9
6 x 6

Factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, 36

Question 2

1 row of 260
2 rows of 130
4 rows of 65
13 rows of 20
20 rows of 13
65 rows of 4
103 rows of 2
260 rows of 1

There are 8 different ways to arrange 260 chairs

Question 3

The only factors of 17 are 1 and 17 (17 is a prime number).

Question 4

Identify all of the prime numbers between 2 and 20.

2 **3** 4 **5** 6 **7** 8 9 10 **11** 12 **13** 14 15 16 **17** 18 **19** 20

Question 5

The factors of 18 are 1, 2, 3, 6, 9 and 18.

Question 6

After 10, the next three composite numbers that are odd are 15, 21 and 25. (Any number that is not a prime number is a compositye number.)

Question 7

There are 5 teaching days per week.

$\frac{87}{5} = 16.4$ rounded to 17 since the last two days are in week 17

The fund would contain 17 loonies … it's a start!!

Question 8

13, 26, 39, 52, 65, 78

Assignment

1. List the first 6 multiples of each number.

a) 5, 10, 15, 20, 25, 30
b) 11, 22, 33, 44, 55, 66
c) 18, 36, 54, 72, 90, 108
d) 25, 50, 75, 100, 125, 150

2. Determine the first 3 common multiples of each pair of numbers.

a) 2 and 5
10, 20, 30

b) 3 and 9
9, 18, 27

c) 7 and 3
21, 42, 63

d) 8 and 10
40, 80, 120

3. Determine the factors of each number. List the factors that are prime numbers.

a) 15
1, 3, 5, 15
primes 3, 5

b) 20
1, 2, 4, 5, 10, 20
primes 2, 5

c) 24
1, 2, 3, 4, 6, 8, 12, 24
primes 2, 3

d) 45
1, 3, 5, 9, 15, 45
primes 3, 5

e) 60
1, 2, 4, 5, 6, 10, 12, 15, 20, 60
primes 2, 5

f) 100
1, 2, 4, 5, 10, 20, 25, 50, 100
primes 2, 5

4. Determine the common factors of each pair of numbers.

a) 16 and 24
2, 4, 8

b) 15 and 45
3, 5, 15

c) 18 and 42
2, 3, 6

d) 20 and 30
2, 5, 10

5. Which of the numbers from 2 to 130 are prime numbers?

We can use the table on the next page. Watch the video clip on youtube at http://www.youtube.com/watch?v=9m2cdWorIq8 . The Greek mathematician Eratosthanes invented this technique and it is called the Sieve of Eratosthanes.

The primes between 2 and 130 are 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127

	2	3		5		7			
11		13				17		19	
		23						29	
31						37			
41		43				47			
		53						59	
61						67			
71		73						79	
		83						89	
						97			
101		103				107		109	
		113							
						127			