

Factors and Multiples Week 15
Use your notebook!!! Homework

Look!

<p>Factors</p> <p>Factors are the darkly shaded numbers along the top and far left of the table.</p> <p>Example: The factors for 6 on the table are: 1, 2, 3, and 6.</p>	<p>Multiples</p> <p>Multiples are the lightly shaded numbers down a column or along a row.</p> <p>Example: The first 5 multiples of 2 and 3 are: 2: 2, 4, 6, 8, 10 3: 3, 6, 9, 12, 15</p> <p>6 is a common multiple of 2 and 3. Common multiples appear in both lists.</p>
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List the factors on the table for each number.

- | | | | |
|--|--|--|---|
| 1. 18
1×18
2×9
3×6
<u>1, 2, 3, 6, 9, 18</u> | 2. 4
1×4
2×2
<u>1, 2, 4</u> | 3. 12
1×12
2×6
3×4
<u>1, 2, 3, 4, 6, 12</u> | 4. 8
1×8
2×4
<u>1, 2, 4, 8</u> |
|--|--|--|---|

Use the table to list 10 multiples for each number in each pair. Then circle the common multiples.

- | | |
|--|---|
| 5. 2, 3
<u>2</u> : 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
<u>3</u> : 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 | 6. 3, 5
<u>3</u> : 3, 6, 9, 12, 15, 18, 21, 24, 27, 30
<u>5</u> : 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 |
|--|---|

Problem Solving

7. Identify a number on the table that has exactly 3 factors. Write the number and list its factors.



- | | |
|--------------------|-----------------------|
| <u>4</u> 1, 2, 4 | <u>49</u> 1, 7, 49 |
| <u>9</u> 1, 3, 9 | <u>121</u> 1, 11, 121 |
| <u>25</u> 1, 5, 25 | <u>169</u> 1, 13, 169 |

... and more!

Show your work.

-5 if no work!

Prime and Composite Numbers

<p>Prime Numbers</p> <ul style="list-style-type: none"> • one array • exactly 2 factors, one and itself  <p>$1 \times 2 = 2 \rightarrow$ Factors: 1, 2</p>	<p>Composite Numbers</p> <ul style="list-style-type: none"> • more than 1 array • more than 2 factors  <p>$1 \times 4 = 4$ $2 \times 2 = 4 \rightarrow$ Factors: 1, 2, 4</p>
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In the table below, list the factors for each number. Use counters if you wish. Tell if the number is prime or composite.

	Number	Factors	Prime or Composite
1.	7	$1 \times 7 \rightarrow 1, 7$	prime
2.	24	1×24 3×8 2×12 $4 \times 6 \rightarrow 1, 2, 3, 4, 6, 8, 12, 24$	Composite
3.	15	1×15 $3 \times 5 \rightarrow 1, 3, 5, 15$	Composite
4.	13	$1 \times 13 \rightarrow 1, 13$	prime
5.	25	1×25 $5 \times 5 \rightarrow 1, 5, 25$	Composite
6.	35	1×35 $5 \times 7 \rightarrow 1, 5, 7, 35$	Composite

Problem Solving

7. Jeff is thinking of a number between 30 and 40 that is prime. If the digits of this prime number are added together, the sum is 10. What number is Jeff thinking of?

- * $30 < ? < 40$
- * prime
- * $_ + _ = 10$

37

(5 points)
Show your work.

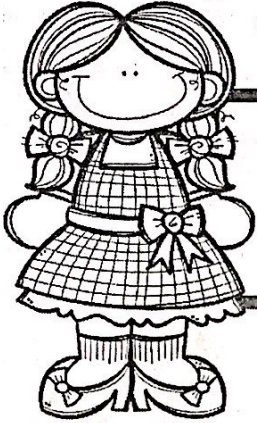
Handwritten work showing numbers 31 through 40. 31, 32, 33, 34, 38, 39, and 40 are crossed out. 35 and 36 are also crossed out. 37 is circled in red. Next to 37 is the calculation $3+7=10$. Next to 31 is $3+1=4$. Next to 39 is $3+9=12$.

Your work should not look exactly like mine!

Name _____ Date _____

I CAN FIND PRIME AND COMPOSITE NUMBERS

Directions: Help Dorothy follow the yellow brick road to find Oz. Color the composite numbers yellow and the prime numbers green.



Use your notebook!!!

** Composite = yellow
* Prime = green*

Start

3

1x3

78

1x78
2x39
3x26
6x13

42

1x42
2x21
6x7
3x14

11

1x11

80

1x80
2x40
4x20
5x16
8x10

2

1x2

1x35

35

5x7



1x39

3x13

39

1x93

93

3x31

1x14

14

2x7

2x25

50

5x10

67

1x67

1x4

4

2x2

1x91

91

7x13

47

1x47

1x15

15

3x5

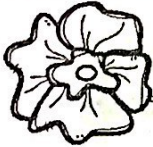
1x99

99

9x11
3x33

73

1x73



1x16

16

2x8
4x4

97

1x97

1x77

77

7x11

66

1x66
3x22
6x11

41

1x41

23

1x23

62

1x62
2x31

40

1x40
2x20
5x8
4x10

83

1x83



1x26

2x13

26

END

29

1x29

1x32

32

2x16
4x8

98

1x98
2x49
7x14

61

1x61

1x30

30

2x15
3x10
5x6

1x12

12

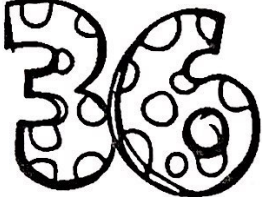










2x6
3x4

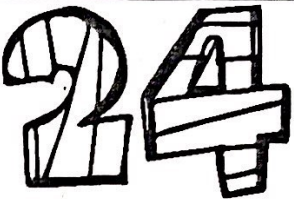











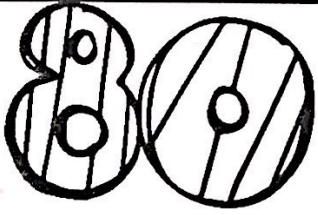









Name _____ Date _____










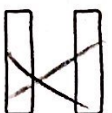
I Can Find Factors

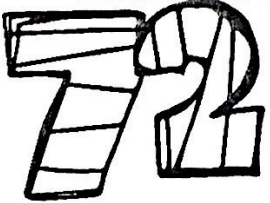










Directions: Look at each big number and find its factors. Color all of the numbers that are factors of the big number.

1.  










2.  









3.  









4.  









5.  










6. 