

Name _____

Math Course 2

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Practice Set 2A - Prime Factorization, GCF, LCM

- 6.1.1.6 a) IWBAT factor a number
 b) IWBAT find the least common multiple of two or more numbers
 c. IWBAT find the greatest common factor of two or more numbers

Date	Book Section	Topic/Events	Practice Assignments	Finished
Monday September 29	2.6	Prime/Composite	What did the mamma buffalo..?	
Tuesday September 30	2.6	Prime Factorization	Why did the horse eat ...	
Wednesday October 1	2.6	Divisibility Rules	Worksheet 53	
Thursday October 2	2.6	Divisibility Rules and Prime Factorization	Lesson 2-6 Practice A	
Friday October 3	2.7	Greatest Common Factor	How can you tell if Monster Likes you	
Monday October 6	2.8	Least Common Multiple	Why did Igor Spend 10 Years... SHOW WORK ON SEPARATE SHEET OF PAPER	
Tuesday October 7	2.8	Review GCF, LCM	Quiz Review Sheet	
Wednesday October 8		Quiz 2A- GCF and LCM	<i>No Homework! Quiz Corrections and work on missing assignments.</i>	

If you wish to later re-take any quiz, you must make corrections on the first quiz and have all homework for that section complete

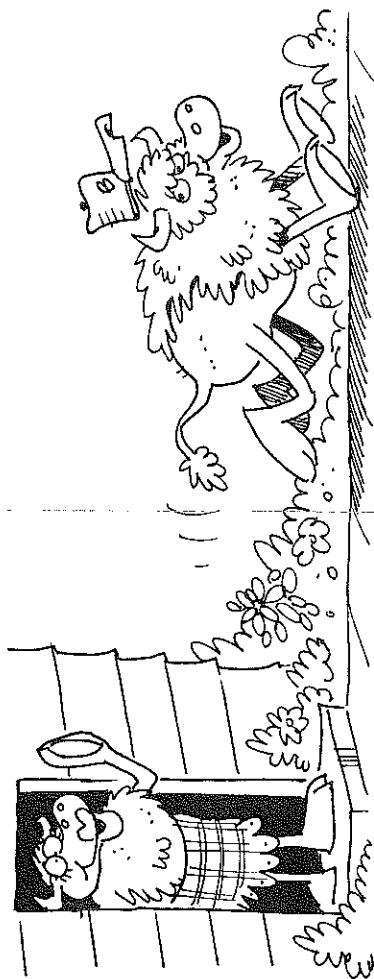
For help with homework at home, got to my.hrw.com

LOGIN and PASSWORD are both **“murraymath6”**

All homework packets are available to download on the Murray Math Website

**Quiz1C Quiz Corrections and Retake Quiz must be completed by
Friday, October 10th!!!**

What Did the Mama Buffalo Say to the Little Boy Buffalo as He Was Leaving for School?



Exactly 60 of the squares below contain prime numbers. Shade in each of these 60 squares. Be sure to use pencil, so you can erase if necessary.

7	10	21	34	6	19	48	39	15	28	40	9	35	26	44	18	50	32	24	14	1
3	42	27	12	33	49	38	4	22	46	30	16	25	36	45	20	8	12	27	38	21
29	17	41	2	46	11	32	31	47	5	16	23	43	13	37	49	41	7	31	3	19
47	30	6	17	42	43	25	2	34	15	1	29	50	22	5	36	9	11	44	28	37
23	39	4	13	20	7	35	41	17	2	26	11	14	45	31	8	40	3	24	33	23
19	18	48	43	10	37	21	6	49	5	27	13	34	16	47	38	22	29	12	30	41
17	3	31	7	1	13	32	2	23	47	25	29	43	19	11	46	15	5	50	42	37

Why Did the Horse Eat With Its Mouth Open?



Write the prime factorization for each number. Find your answer in the adjacent answer list. Write the letter of the answer in each box containing the number of the exercise.

① $\begin{array}{c} 12 \\ \wedge \end{array}$	② $\begin{array}{c} 20 \\ \wedge \end{array}$	③ $\begin{array}{c} 35 \\ \wedge \end{array}$	(U) $2 \times 3 \times 5$ (B) $2^2 \times 3$ (E) 5×7 (G) $2^2 \times 7$ (H) $2^2 \times 5$																	
④ $\begin{array}{c} 36 \\ \wedge \end{array}$	⑤ $\begin{array}{c} 75 \\ \wedge \end{array}$	⑥ $\begin{array}{c} 99 \\ \wedge \end{array}$	(D) 3×5^2 (J) 2×3^2 (M) $3^2 \times 11$ (R) $2^2 \times 3^2$ (F) $2 \times 5 \times 11$																	
⑦ $\begin{array}{c} 60 \\ \wedge \end{array}$	⑧ $\begin{array}{c} 56 \\ \wedge \end{array}$	⑨ $\begin{array}{c} 26 \\ \wedge \end{array}$	(K) 23×5 (I) 2×13 (C) $2 \times 5 \times 7$ (L) $2^3 \times 7$ (S) $2^2 \times 3 \times 5$																	
⑩ $\begin{array}{c} 81 \\ \wedge \end{array}$	⑪ $\begin{array}{c} 100 \\ \wedge \end{array}$	⑫ $\begin{array}{c} 90 \\ \wedge \end{array}$	(A) $2^2 \times 5^2$ (O) 2×3^3 (N) 3^4 (T) $2 \times 3^2 \times 5$ (P) $2^3 \times 3 \times 5$																	
9	12	2	11	5	1	11	5	7	12	11	1	8	3	6	11	10	10	3	4	7

NAME _____

WORKSHEET 53

(Use after page 123.)

What would you call it if 25
dairy cows were sent into orbit?

To check your answer:

- Cross out each box containing a number divisible by the check number.
- Then read the answer using the letters in the remaining boxes.

2	1. 5336 T	2. 1780 O	3. 1973 T	4. 28,748 E
	5. 6645 H	6. 5532 S	7. 24,863 E	8. 88,412 S
3	9. 6852 M	10. 2018 H	11. 3805 E	12. 93,414 O
	13. 18,521 R	14. 23,436 P	15. 63,275 D	16. 71,514 S
4	17. 5310 S	18. 2616 F	19. 6122 H	20. 30,132 E
	21. 27,112 R	22. 56,000 L	23. 27,411 O	24. 3102 T
5	25. 1875 A	26. 1020 M	27. 20,422 R	28. 9433 O
	29. 23,435 J	30. 876 U	31. 16,125 D	32. 38,005 I
8	33. 5176 B	34. 6140 N	35. 21,136 I	36. 23,148 D
	37. 63,208 C	38. 57,320 E	39. 2010 T	40. 19,048 A
9	41. 2925 R	42. 3952 H	43. 4599 S	44. 5238 M
	45. 69,354 O	46. 27,625 E	47. 57,426 W	48. 46,683 R
10	49. 2344 O	50. 1870 T	51. 28,685 R	52. 28,670 W
	53. 47,800 R	54. 69,320 A	55. 2985 L	56. 3062 D

Answer: _____

Divisibility Rules

2 – If the last digit is even

3 – If the sum of the digits is divisible by 3

4 – If the last two digits form a number divisible by 4

5 – If the last digit is a 5 or a 0

6 – If the number is divisible by both 3 and 2

8 – If the last three digits form a number divisible by 8

9 – If the sum of the digits is divisible by 9

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LESSON
2-6

Practice A
Prime Factorization

Tell whether each number is prime or composite.

1. 25

2. 16

3. 21

4. 29

Choose the letter for the best answer.

5. What is the prime factorization of 24?

A $2^3 \cdot 3$

B $2^2 \cdot 2$

C $2^2 \cdot 3^2$

D $2^3 \cdot 3^2$

6. What is the prime factorization of 50?

F $3 \cdot 5^2$

G $3^2 \cdot 5$

H $2 \cdot 5^2$

J $3^2 \cdot 5^2$

7. What is the prime factorization of 35?

A $2 \cdot 3 \cdot 5$

B $5 \cdot 7$

C $3^2 \cdot 5$

D $3^2 \cdot 7$

8. What is the prime factorization of 27?

F 3^3

G $2^2 \cdot 3$

H 9^2

J $2^2 \cdot 3^2$

Use a factor tree to find the prime factorization.

9. 25

10. 20

11. 32

12. 49

17. 93

18. 110

19. 80

20. 42

How Can You Tell If a Monster Likes You?

Find the greatest common factor (GCF) for each pair of numbers. Write the letter next to the answer in the box containing the exercise number. If the answer has a ●, shade in the box instead of writing a letter in it.

① GCF of 14 and 21

② GCF of 10 and 12

③ GCF of 15 and 25

④ GCF of 6 and 15

⑤ GCF of 36 and 27

⑥ GCF of 22 and 33

⑦ GCF of 60 and 20

Answers 1 – 7:

Ⓟ 1 Ⓝ 8

ⓔ 2 ● 9

Ⓡ 3 Ⓣ 11

ⓐ 5 Ⓛ 12

Ⓞ 6 ⓔ 20

Ⓢ 7 Ⓡ 30

⑧ GFC of 12 and 9

⑨ GFC of 24 and 16

⑩ GFC of 45 and 20

⑪ GFC of 12 and 42

⑫ GFC of 30 and 50

⑬ GFC of 36 and 12

⑭ GFC of 100 and 250

Answers 8 – 14:

Ⓦ 1 Ⓝ 9

Ⓞ 3 ⓐ 10

● 5 Ⓡ 12

ⓔ 6 ● 15

Ⓛ 7 Ⓢ 40

Ⓡ 8 Ⓣ 50

⑮ GFC of 24 and 30

⑯ GFC of 8 and 15

⑰ GFC of 28 and 12

⑱ GFC of 18 and 40

⑲ GFC of 64 and 16

⑳ GFC of 30 and 75

㉑ GFC of 180 and 54

Answers 15 – 21:

● 1 ⓐ 10

Ⓣ 2 ● 12

Ⓝ 4 Ⓡ 15

ⓔ 6 Ⓚ 16

Ⓢ 7 Ⓟ 18

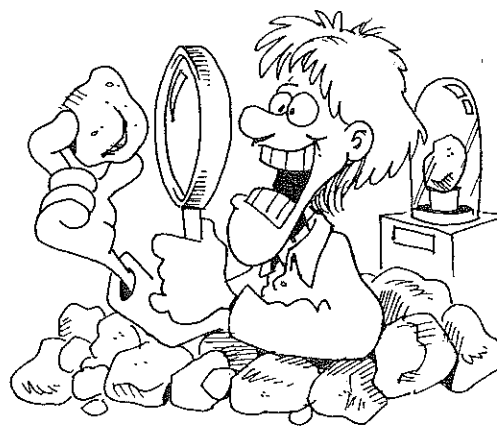
ⓖ 9 Ⓡ 24



9	15	5	14	12	19	7	1	16	3	17	8	6	20	2	13	10	21	4	18	11
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Why Did Igor Spend 10 Years Studying Geology?

Find the least common multiple (LCM) for each pair of numbers. Look for your answer in the set of boxes under the exercise. Write the letter of the exercise in the box containing the answer.



<input checked="" type="radio"/> T	LCM of 3 and 5	<input type="radio"/> B	LCM of 7 and 21
<input type="radio"/> E	LCM of 4 and 6	<input type="radio"/> W	LCM of 10 and 70
<input type="radio"/> A	LCM of 2 and 9	<input type="radio"/> D	LCM of 5 and 2
<input type="radio"/> O	LCM of 10 and 4	<input type="radio"/> E	LCM of 15 and 9
<input type="radio"/> H	LCM of 9 and 12	<input type="radio"/> T	LCM of 11 and 8
<input type="radio"/> E	LCM of 6 and 5	<input type="radio"/> N	LCM of 12 and 20

36	45	72	70	18	60	15	30	10	180	88	20	90	21	12
----	----	----	----	----	----	----	----	----	-----	----	----	----	----	----

<input type="radio"/> S	LCM of 8 and 6	<input type="radio"/> B	LCM of 10 and 6
<input type="radio"/> A	LCM of 15 and 25	<input type="radio"/> R	LCM of 7 and 8
<input type="radio"/> O	LCM of 4 and 8	<input type="radio"/> G	LCM of 25 and 10
<input type="radio"/> I	LCM of 6 and 9	<input type="radio"/> C	LCM of 45 and 15
<input type="radio"/> K	LCM of 8 and 10	<input type="radio"/> R	LCM of 30 and 40
<input type="radio"/> A	LCM of 9 and 4	<input type="radio"/> T	LCM of 24 and 9

75	180	30	18	50	48	120	8	45	40	150	24	72	36	56
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QUIZ 2A REVIEW

Name _____ Date _____

QUIZ REVIEW!!!

Factor each number completely and **CIRCLE ALL PRIME NUMBERS**

1.) 100

2.) 48

3.) What is the prime factorization of 60?

Use this space to factor

A.) $3^2 \cdot 5$

B.) $2^2 \cdot 3^2$

C.) $3 \cdot 5 \cdot 2^2$

D.) $3^2 \cdot 5^2$

4. What is the prime factorization of 50?

A.) $2^2 \cdot 5^2$

B.) $2 \cdot 5^2$

C.) $7^2 \cdot 3$

D.) $3^2 \cdot 5^2$

-----Score ____/4

QUIZ 2A REVIEW

What is the **greatest common factor** of the following pairs of numbers?

5.) 50 and 75

GCF = _____

6.) 150 and 80

GCF = _____

-----Score ____/4

What is the **least common multiple** of the following sets of numbers?

7.) 40 and 12

LCM = _____

8.) 15 and 12

LCM = _____

-----Score ____/4