pg. 7-9 #1-7, 18, 21, 29-34

1. addition

2. multiplication

3. division

4. subtraction

5. addition

6. subtraction

7. **a.** dividend

   b. quotient

   c. divisor

18. 3108

21. 31

29. multiplication

30. subtraction

31. division

32. multiplication

33. addition

34. division

pg. 14-15   #5-9 odd, 14, 15, 19, *36

5. 13^2

7. 2^5

9. 8^4

14. 25

15. 64

19. 65,536

36. **a.** 9 by 9 tile arrangement, 10 by 10 tile arrangement, or 11 by 11 tile arrangement

   b. in the 9 by 9 arrangement: 44 tiles; in the 10 by 10 arrangement: 25 tiles; in the 11 by 11 arrangement: 4 tiles

pg. 20-21 #7, 8, 9, 11, 18, 22, 31, *21

7. 5

8. 60

9. 24

11. 88

18. 17

21. 47

22. 81

31. $23; Add the prices of the items you buy. Then subtract the amount of the gift card from the total.

Name_____ Date_____

Review 1.1-1.3

Vocabulary. These are the words that you need to know.

Sum	Difference	Product	Quotient
Divisor	Dividend	Factor	Exponent
Base	Value	Perfect Square	Square Root
Evaluate	Numerical Expression	Order of Operations	

Find the value of the expression

1. $4058 - 2396$

1662

2. $7791 + 639$

8430

3. $2208 \div 96$

23

4. 182×63

11,466

Determine the operation you would use to solve the problem. **Do not answer the question.**

5. The box office sold a total of 1762 tickets. There were 241 balcony seat tickets sold. How many regular seat tickets were sold?

Subtraction

6. The warehouse has 14 aisles. Each aisle has 36 shelves. How many shelves does the warehouse have?

Multiplication

7. The orange grove produced 892 crates of oranges. Each train car holds 112 crates. What is the minimum number of train cars they will need?

Division

Write the product as a power

8. $11(11)$

11^2

9. $10 \bullet 10 \bullet 10 \bullet 10 \bullet 10$

10^5

Find the value of the power.

9. 7^3

343

10. 9^2

81

Determine whether the number is a perfect square. Explain.

11. 12   **No. No two whole numbers that are exactly the same will give you the product of 12**

12. 36   **Yes. The square of 6 will give you 36.**

Evaluate the expression. SHOW ALL WORK.

13. $14 \div (8 - 6) + 5$

12

14. $2 \times 4 + 3^2$

17

15. $64 \div 16 + 5 \times 3$

19

16. $\dfrac{121 - 5 + 4(7)}{12}$

12

17. Which operation should you perform first when you evaluate the following expression?

$$15 - 8 \div (4 - 2) \times 3$$

A. Subtract 8 from 15.

B. Subtract 2 from 4.

C. Divide 8 by 4.

D. Multiply 2 by 3.

pg. 28-29 #9, 19, 21, 23, 27, 35, 37, 42, 44

9. 1, 22; 2, 11

19. $2 \cdot 13$

21. $2 \cdot 3 \cdot 3 \cdot 3$ or $2 \cdot 3^3$

23. $7 \cdot 11$

27. 1575

35. See *Taking Math Deeper.*

37. cupcake table; Because 60 has more factors than 75, there are more rectangular arrangements.

42. 2395

44. B

pg. 34-35   #7, 11, 13, 15, 19, 21, 23, 39

7. 3

11. 17

13. 15

15. 9

19. 7 is the greatest common *prime* factor. The GCF is $2 \cdot 7 = 14$.

21. 23 packets

23. 7

39. B

pg. 40-41 #7, 9, 12, 15, 21, 23, 25, 32

7. 12

9. 40

12. 63

15. 66

21. D; This model represents multiples of 4 and 6 which have an LCM of 12. The other models represent multiples of 3 and 8, 8 and 12, and 6 and 8, which have an LCM of 24.

23. 165

25. 120

32. See *Taking Math Deeper.*

Name_____*Answers*_____ Date_____

Chapter 1 Review and Study Guide

Vocabulary. These are the words that you need to know.

Sum	Difference	Product	Quotient
Divisor	Dividend	Factor	Exponent
Base	Value	Perfect Square	Evaluate
Numerical Expression	Order of Operations	Factor Pair	Prime Factorization
Greatest Common Factor	Venn Diagram	Multiple	Least Common Multiple

Find the value of the expression

1. $5643 + 1827$

    7470

2. $8105 - 4463$

    3643

3. $364 \div 14$

    26

4. 43×59

    2537

For #5-7, STATE the operation you would use to solve the problem. Afterwards, solve the problem

5. A shopper gives a cashier $60 to pay for a $49 item. How much does the cashier owe the shopper?

    $Subtraction$ $\$11$

6. A movie theater has 18 rows with 15 seats each. How many seats does the theater have?

    $Multiplication$ $270\ seats$

7. A farmer has 450 eggs. Egg cartons hold 12 eggs. How many cartons does the farmer need?

    $Division$ $38\ cartons.$ ~~You need~~ You can't get 37.5 cartons.

8. What is the difference between $7 \bullet 3$ and 7^3 ?

    $7 \cdot 3 = 21$

    $7^3 = 7 \cdot 7 \cdot 7 = 343$

Determine whether the number is a perfect square. Explain.

9. 100

Yes. $10^2 = 100$

10. 42

No. No two ~~whole~~ numbers that are exactly the same will give you the product of 42.

Evaluate the expression. SHOW ALL WORK.

11. $126 - 9 \div 3 \bullet 28$

$= 126 - 3 \bullet 28$

$= 126 - 84$

$= \boxed{42}$

12. $34 + 2^4 \times 3 - 29$

$= 34 + 16 \times 3 - 29$

$= 34 + 48 - 29$

$= 82 - 29$

$= \boxed{53}$

13. $\dfrac{64 \div 16 + 16}{2}$

$= \dfrac{4 + 16}{2}$

$= \dfrac{20}{2}$

$= \boxed{10}$

14. $2^3 + 16 \times 3 \div 4 + 6$

$= 8 + 16 \times 3 \div 4 + 6$

$= 8 + 48 \div 4 + 6$

$= 8 + 12 + 6$

$= 20 + 6$

$= \boxed{26}$

Write the prime factorization of the number

11. 120

```
      / \
    ③   40
        / \
      ⑤   8
          / \
        ②   4
            / \
          ②  ②
```

$$120 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5$$

12. 38

```
   / \
  ②  ⑲
```

$$38 = 2 \cdot 19$$
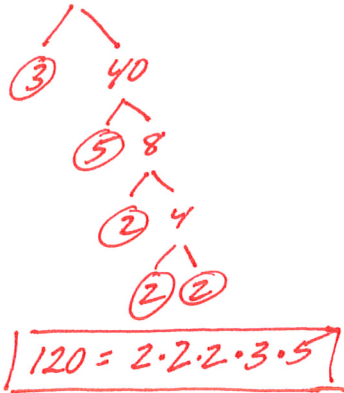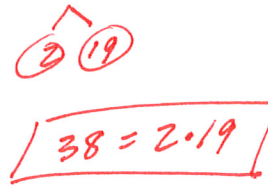
13. What is the prime factorization of the number 90?

   A. $3 \cdot 2 \cdot 15$

   B. $2 \cdot 3 \cdot 5$

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

   D. $2 \cdot 3^2 \cdot 5$ *(circled)*

14. A class of 54 students is divided into equal groups for orientation. Each group should have at least 7 students but no more than 10 students. What is the group size?

   a) What is the group size?   9 students

   b) How many groups are there?   6 groups

```
1   54
2   27
3   18
6    9
```

15. The town administrators separate the 84 houses in a neighborhood into equal groups to do safety inspections. Which of the following groupings is not possible?

   A. Three groups of 26 houses *(circled)*

   B. Four groups of 21 houses

   C. Six groups of 14 houses

   D. Seven groups of 12 houses

Find the GCF of the numbers.

16. 16, 28

   4

17. 18, 60

   6

18. 9, 42, 57

   3

19. What is the greatest number that divides evenly into both 42 and 81?

   **A.** 1   **B.** 3

   C. 6   **D.** 9

20. You are creating identical candy bags using 18 chocolate bars and 30 peanut butter cups. What is the greatest number of bags you can fill using all the candy?

   Find the GCF of 18 and 30

   6 bags

Find the LCM of the numbers.

21. 6, 8   22. 24, 32   23. 3, 16, 20

   24   96   240

24. A northbound bus and a southbound bus are at a bus stop at the same time. The northbound bus returns to the bus stop every 20 minutes and the southbound bus returns to the bus stop every 25 minutes. How long will it be before both buses are the bus stop at the same time again?

   A. 50 minutes   **B.** 100 minutes

   C. 200 minutes   **D.** 500 minutes

25. You have violin lessons every fourth day and singing lessons every fifth day. Today you have both lessons. In how many days will you have both lessons on the same day again?

   In 20 days