Final Review. (Answers)

Write the definitions of the following.

1. digit — See Glossary. Answers may vary.
2. whole number
3. integer
4. even numbers
5. odd numbers
6. sum
7. quotient
8. difference
9. product
10. symbol
11. exponent
12. number sentence
13. a factor
14. factoring
15. a multiple
16. prime number

What do these symbols mean?

17. × times or multiplied by

18. ÷ divided by

19. < is less than

20. * times or multiplied by

21. $\overline{)}$ divided by or divided into

22. > is greater than

What is the place value of the 4 in the following numbers?

23. 2,400 hundreds

24. 4,001,238 millions

25. 1,406,987 hundred thousands

Solve

26. 3^4 81

27. 2^3 8

28. 1^5 1

Answer

29. List all possible factors of 45.
    1, 3, 5, 9, 15, 45

30. Find the GCF of 15 and 50.
    5

31. Find the LCM of 14 and 21.
    42

32. Which numbers are divisible by 2? 33 14 50 57

33. Which numbers are divisible by 3? 33 14 50 57

34. Which numbers are divisible by 5? 26 11 50 65

35. Which numbers are divisible by 10? 26 11 50 65

36. Find the prime factorization of 900. 2 x 2 x 3 x 3 x 5 x 5

Chapter 3 – Arithmetic (Answers)

1. Show 3 + 4 = 7 using pictures. Answers will vary.
2. Show 6 – 1 = 5 using pictures.
3. Show 3 × 4 = 12 using pictures.
4. Show 10 ÷ 2 = 5 using pictures.
5. Show 2 + 6 = 8 using pictures.
6. Show 3 – 1 = 2 using pictures.
7. Show 6 × 2 = 12 using pictures.
8. Show 12 ÷ 3 = 4 using pictures.
9. Label the number that each arrow is pointing to.

```
   3 ← addend          17 ← minuend
+  9 ← addend        –  7 ← subtrahend
  12 ← sum            10 ← difference

   6 ← factor      18 ÷ 3 = 6
 × 4 ← factor        ↑   ↑   ↑
  24 ← product   dividend divisor quotient
```

Chapter 4 – Place Value (Answers)

Write the number out in words, the way you would say it.

1. 921,438 — Nine Hundred Twenty-One Thousand, Four Hundred Thirty-Eight.
2. 243,199,203 — Two Hundred Forty-Three Million, One Hundred Ninety-Nine Thousand, Two Hundred Three.
3. 506,111,242,000 — Five Hundred Six Billion, One Hundred Eleven Million, Two Hundred Forty-Two Thousand.
4. 718,640,700,802,411 — Seven Hundred Eighteen Trillion, Six Hundred Forty Billion, Seven Hundred Million, Eight Hundred Two Thousand, Four Hundred Eleven.
5. 990,400,628,455,817,224 — Nine Hundred Ninety Quadrillion, Four Hundred Trillion, Six Hundred Twenty-Eight Billion, Four Hundred Fifty-Five Million, Eight Hundred Seventeen Thousand, Two Hundred Twenty-Four.

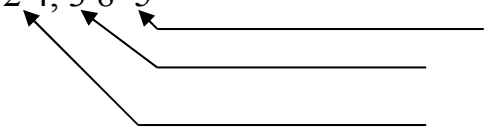
Label the periods.

6. 321,452,300
   321 Millions Period
   452 Thousands Period
   300 Ones Period

7. 421,407,852,311,794,612
   421 Quadrillions Period
   407 Trillions Period
   852 Billions Period
   311 Millions Period
   794 Thousands Period
   612 Ones Period

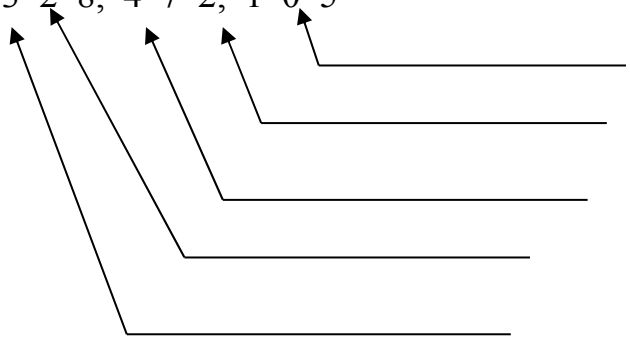
Label the place values shown.

8. 1 2 4, 3 8 5



Ones
Hundreds
Ten Thousands

9. 3 2 8, 4 7 2, 1 0 5



Tens
Thousands

Hundred thousands

Ten millions
Hundred millions

Chapter 6 – Exponents (Answers)

Write as a multiplication problem.

1. 4^3 4 x 4 x 4
2. 8^2 8 x 8
3. 16^3 16 x 16 x 16
4. 6^2 6 x 6
5. 7^5 7 x 7 x 7 x 7 x 7
6. 2^6 2 x 2 x 2 x 2 x 2 x 2

Write as an exponent.

7. $2\times2\times2\times2$ 2^4
8. 3×3 3^2
9. $8\times8\times8\times8\times8\times8$ 8^6
10. $10\times10\times10$ 10^3
11. $6\times6\times6\times6$ 6^4
12. 5×5 5^2

Solve.

13. 2^2 4
14. 5^2 25
15. 3^3 27
16. 2^5 32
17. 4^3 64
18. 2^6 64
19. 3^4 81
20. 10^2 100
21. 10^4 10,000
22. 7^2 49

Chapter 7 – Word Problems

Solve.

1. Ten shared equally with 5 people is _____2_____.
2. Eight plus three is _____11_____.
3. Ten minus seven equals _____3_____.
4. 5 apples added to 6 apples is _____11_____apples.
5. Eight chess pieces together with eight chess pieces is _____16_____ total chess pieces.
6. The difference of 8 and 6 is _____2_____.
7. The quotient of six and two equals _____3_____.
8. The sum of three and 7 is _____10_____.
9. 4 tables decreased by one table is _____3_____ tables.
10. 3 feet shorter than 8 feet is _____5_____feet.
11. Ten times two equals _____20_____.
12. Six fewer than twelve is _____6_____.
13. One longer than two is _____3_____.
14. 15 divided by 3 equals _____5_____.
15. The product of two and nine is _____18_____.

Chapter 8 – Factoring and Multiples (Answers)

List all possible factors.

1.	40	1, 2, 4, 5, 8, 10, 20, 40
2.	18	1, 2, 3, 6, 9, 18
3.	27	1, 3, 9, 27
4.	16	1, 2, 4, 8, 16
5.	28	1, 2, 4, 7, 14, 28
6.	42	1, 2, 3, 6, 7, 14, 21, 42

Find the GCF.

7.	15, 75	15
8.	8, 12	4
9.	20, 100	20
10.	14, 49	7
11.	10, 25	5
12.	27, 36	9

Find the LCM

13.	15, 75	75
14.	8, 12	24
15.	4, 16	16
16.	21, 14	42
17.	3, 7	21
18.	8, 36	72

Chapter 9 – Divisibility Rules (Answers)

Check for divisibility of the following numbers. Put a checkmark in any column that applies.

Number	Divisible by 2?	Divisible by 3?	Divisible by 5?	Divisible by 10?
36	x	x		
47				
300	x	x	x	x
95			x	
111		x		
31,000	x		x	x
78	x	x		
321		x		
405		x	x	
611				
88	x			
87		x		
85			x	
340	x		x	x
6502	x			
4305		x	x	
7000	x		x	x
9000	x	x	x	x

Chapter 10 – Prime Factorization (Answers)

Use a factor tree and divisibility rules to find the prime factorization.

1.	28	2 x 2 x 7
2.	20	2 x 2 x 5
3.	54	2 x 3 x 3 x 3
4.	60	2 x 2 x 3 x 5
5.	85	5 x 17
6.	100	2 x 2 x 5 x 5
7.	225	5 x 5 x 9
8.	800	2 x 2 x 2 x 2 x 2 x 5 x 5
9.	99	3 x 3 x 11
10.	84	2 x 2 x 3 x 7
11.	162	2 x 3 x 3 x 3 x 3
12.	550	2 x 5 x 5 x 11