CHAPTER 13 REVIEW

1. find all the square roots of:

a) **225** b) 

1. Evaluate each square root:

a)  =

b)  =

c)  =

d)  =

e)  =

f)  =

3) Given a right triangle with legs of a and b and hypotenuse of c, find the missing side

1. a = 3, b = 4
2. a = 6, c = 10
3. b= 12, c = 13
4. Find each of the following roots:

a)  =

b)  =

c)  =

d)  =

e)  =

# **REVIEW OF EXPONENT RULES**

## Simplify each set using any exponent rules that applies

1)  = 2)  =

3)  = 4) =

5) = 6) =

7) = 8) =

Simplify each set using the appropriate exponent rule(s)

1)  = 2)  =

3)  4) 

5)  6) 

7)  8) 

1) Find each product and simplify the radical

a)  =

b)  =

c)  =

d)  =

e)  =

2) Simplify each radical

a)  =

b)  =

c)  =

3) Simplify each product

a)  =

b)  =

4) Simplify each term

a)  =

b)  =

c)  =

d)  =

e)  =

f)  =

g) 

h) 

5) Simplify each radical

a)  =

b)  =

c)  =

d)  =

e)  =

Complete the operations shown and simplify each expression

1)  =

2)  =

3)  =

4)  =

5)  =

6)  =

7)  =

8)  =

9)  =

10)  =

11)  =

12)  =

13)  =

Complete the operations shown and simplify each expression

1)  =

2)  =

3) 

4) 

5)  =

6)  =

7)  =

8)  =

9)  =

10)  =

11)  =

12)  =

13)  =

More rationalizing the denominator

1)  = 8)  =

2)  = 9)  =

3)  = 10)  =

4)  = 11)  =

5)  = 12)  =

6)  = 13)  =

7)  = 14)  =

Solve each equation for the given variable

1) = 7

2) 

3) 

4) 

5) 

6) 

7) 

8) 

9) 

10) 

11) 

12) 

13) 

1)  = 2)  =

3)  = 4)  =

5)  = 6)  =

7)  = 8)  =

9)  = 10)  =

11)  12)  =

13)  = 14)  =

15)  = 16) 

17)  = 18)  =

19)  = 20)  =

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1a) 15, -15   1. 8/15, -8/15   2a) 6   1. -6 2. 6i 3. 9/11 4. –9/11 5. 9i/11   3a) c = 5   1. b = 8 2. a = 5   4a) 4   1. -4 2. 5 3. 5 4. not real | Integer exponents  1)  2)  3)  4)  5)  6) 1  7)  8) | Rational exponents  1)  2)  3)  4)  5)  6)  7)  8) | 1a)  b)  c)   1. 15   2a)  b)  c)  3a)  b)  4a) 4/15  b)   1. 3 3. y     5a)  b)   1. 2/3 2. 4/5 3. –2/5 | 1)  2)  3)  4)  5)  6)  7) 0  8)  9)  10)  11)  12)  13) |

|  |  |  |  |
| --- | --- | --- | --- |
| 1)  2)  3)  4)  5)  6)  7)  8) 23  9) 1  10)  11)  12)  13) | 1)  2)  3)  4)  5)  6)  7) 1/6  8) 1  9)  10)  11)  12)  13)  14) | 1. x = 27 2. y = 28 3. x =-1 4. x = 52/5 5. undefined 6. a = 100 7. x = -3/7 8. x = 8/3 9. y = 5 10. y = 4 11. x = 12, x = 4 12. t = 3, t = -1 13. x = 4, x = 9/4 | 1. 11i  4. –13 5. –20 7. 5i 8. 12 + I 9. –10 – 7i 10. –24 11. –84 12. 21i – 14 13. –10 - 20i 14. –26 15. 26 – 22i 16. 34 |