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) $\sqrt{x}$ = 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, -151. 8/15, -8/15

2a) 61. -6
2. 6i
3. 9/11
4. –9/11
5. 9i/11

3a) c = 51. b = 8
2. a = 5

4a) 41. -4
2. 5
3. 5
4. not real
 | Integer exponents1) 2) 3) 4) 5) 6) 17) 8)  |  Rational exponents1) 2) 3) 4) 5) 6) 7) 8)  | 1a)  b)  c) 1. 15
2.

2a)  b)  c)  3a)  b) 4a) 4/15 b) 1. 3
2.
3. y
4.
5.
6.

5a)  b) 1. 2/3
2. 4/5
3. –2/5
 | 1) 2) 3) 4) 5) 6) 7) 08) 9) 10) 11) 12) 13)  |

|  |  |  |  |
| --- | --- | --- | --- |
|  1) 2) 3) 4) 5) 6) 7) 8) 239) 110)  11) 12) 13)  |  1) 2) 3) 4) 5) 6) 7) 1/68) 19) 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
2.
3.
4. –13
5. –20
6.
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
17.
18.
19.
20.
 |