

NUMBER AND QUANTITY Math 2 EOC Review (2)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1.  $64^{\frac{3}{4}}$  is equivalent to \_\_\_\_\_.
  - A.  $\sqrt[3]{64^4}$
  - B.  $\sqrt[4]{64^3}$
  - C.  $\frac{1}{4}(64)^3$
  - D.  $3(\sqrt[4]{64})$
  
2. Write  $x^{3/5}$  in radical form.
  - A.  $\sqrt{x^{5/3}}$
  - B.  $(\sqrt{x})^{3/5}$
  - C.  $\sqrt[3]{x^5}$
  - D.  $\sqrt[5]{x^3}$
  
3. Write  $\sqrt[5]{72}$  in exponential form.
  - A.  $2^{5/7}$
  - B.  $7^{2/5}$
  - C.  $7^{5/2}$
  - D.  $5^{49}$
  
4. You are asked to explain what  $\sqrt[5]{72}$  means. Which of the following explanations is true?
  - A.  $\sqrt[5]{72}$  means to find  $\frac{1}{5}$  of 72
  - B.  $\sqrt[5]{72}$  means to divide 72 by 5
  - C.  $\sqrt[5]{72}$  means to multiply  $(72)(72)(72)(72)(72)$
  - D.  $\sqrt[5]{72}$  means the number that multiplies itself five times to equal 72

5. Simplify:  $\sqrt{48}$ 
  - A.  $4\sqrt{3}$
  - B.  $16\sqrt{3}$
  - C.  $2\sqrt{12}$
  - D.  $4\sqrt{12}$
  
6. Simplify:  $\sqrt{27}$ 
  - A.  $3\sqrt{2}$
  - B.  $3\sqrt{3}$
  - C.  $9\sqrt{3}$
  - D.  $3\sqrt{6}$
  
7. Which one of the following radicals *cannot* be simplified?
  - A.  $\sqrt{24}$
  - B.  $\sqrt{25}$
  - C.  $\sqrt{26}$
  - D.  $\sqrt{27}$
  
8. Simplify:  $\sqrt{64x^4y^6}$ 
  - A.  $8xy^2$
  - B.  $8x^2y^3$
  - C.  $8x^6y^4$
  - D.  $8x^8y^{12}$

9. Simplify:  $\sqrt{25c^4d^{16}}$

A.  $5cd$

B.  $5c^2d^8$

C.  $5c^8d^{32}$

D.  $5c^{16}d^4$

10. Find:  $36^{-\frac{1}{2}}$

A.  $-6$

B.  $\frac{1}{6}$

C.  $\frac{1}{72}$

D.  $\frac{1}{18}$

11. Tracy wants to use an expression that will give her an odd integer. Which expression should she use?

A.  $5x + 1$

B.  $4x + 1$

C.  $3x$

D.  $x^2$

12. Name the real part of this complex number:

$$-2 - 7i$$

A.  $-7i$

B.  $7i$

C.  $-7$

D.  $-2$

13. Name the imaginary part of the following complex number:

$$-3i$$

A.  $-3i$

B.  $-3$

C.  $3$

D.  $i$

14. Name the imaginary part of this complex number:

$$3 - 3i$$

A.  $0$

B.  $-i$

C.  $-3i$

D.  $3i$

15. Name the real part of the following complex number:

$$-3 + 2i\sqrt{2}$$

A.  $\sqrt{2}$

B.  $2\sqrt{2}$

C.  $2$

D.  $-3$

16. When expressed in terms of the imaginary unit  $i$ ,  $\sqrt{-8}$  can be represented as \_\_\_\_\_.

A.  $-8i$

B.  $2i\sqrt{2}$

C.  $2i\sqrt{4}$

D.  $8i$

17. When expressed in terms of the imaginary unit  $i$ ,  $\sqrt{-12}$  can be represented as \_\_\_\_\_.

A.  $-12i$

B.  $2i\sqrt{3}$

C.  $2i\sqrt{6}$

D.  $12i$

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1.  
Answer:        B  
Objective:     N.RN.1
2.  
Answer:        D  
Objective:     N.RN.1
3.  
Answer:        B  
Objective:     N.RN.1
4.  
Answer:        D  
Objective:     N.RN.1
5.  
Answer:        A  
Objective:     N.RN.2
6.  
Answer:        B  
Objective:     N.RN.2
7.  
Answer:        C  
Objective:     N.RN.2
8.  
Answer:        B  
Objective:     N.RN.2
9.  
Answer:        B  
Objective:     N.RN.2
10.  
Answer:        B  
Objective:     N.RN.2
11.  
Answer:        B  
Objective:     N.RN.3
12.  
Answer:        D  
Objective:     N.CN.1
13.  
Answer:        B  
Objective:     N.CN.1
14.  
Answer:        C  
Objective:     N.CN.1

15.  
Answer:        D  
Objective:     N.CN.1
16.  
Answer:        B  
Objective:     N.CN.1
17.  
Answer:        B  
Objective:     N.CN.1