

Name _____
Date _____

Study Guide #7: Chapter 5

1. Circle the digit in the following number that is in the thousandths position:

7,881.6127

2. Write the given decimal in expanded form:

45.913

3. Round the given decimal to the nearest hundredth:

19.854

Simplify the given expressions:

4. **$52.671 + 5.97$**

5. **$-9.829 - (-17.33)$**

6. **$-1.7 - (1.9 - (-16.25))$**

7. **$(-90.8)(3.1)$**

8. **$(0.36)(7.4) - (-2.8)^2$**

9. $\frac{-1.634}{-8.6}$

10. $\frac{-129 - (-10.98)}{0.5^2}$

11. Simplify the given expression by first converting the fraction into a terminating decimal:

$$\frac{7}{5} + 531$$

12. Simplify the given expression by first converting the decimal to a fraction:

$$-\frac{2}{3} + 0.9$$

13. Convert the given fraction to a decimal:

$$\frac{98}{66}$$

Solve the following equations for x:

14. $-3.8x - 1.7 = -17.28$

15. $-63x - 0.4(x - 12) = -0.86$

16. List all the square roots of 121.

Compute the exact square root. If the square root is undefined, write "undefined".

17. $\sqrt{-36}$

18. $-\sqrt{169}$

19. $\sqrt{225}$

20. $\sqrt{\frac{144}{25}}$

21. $-\sqrt{0.49}$

Compute the exact value of the given expression:

22. $2\sqrt{4} - 3\sqrt{9}$

23. $\sqrt{5^2 + 12^2}$

24. A circle has a radius of 3.1 cm. Using $\pi \approx 3.14$, find the circumference of the circle, rounded to the nearest tenth of a centimeter.

25. A circle has a diameter of 7 m. Using $\pi \approx 3.14$, find the area of the circle, rounded to the nearest hundredth of a square meter.

26. The length of one leg of a right triangle is 13 meters, and the length of the hypotenuse is 22 meters. Find the exact length of the other leg.

Answers:

- 2
- $40 + 5 + \frac{9}{10} + \frac{1}{100} + \frac{3}{1000}$
- 19.85
- 58.641
- 7.501
- -19.85
- -281.48
- -5.176
- 0.19
- -7.69
- 6.71
- $\frac{7}{30}$
- $\frac{30}{148}$
- $x=4.1$
- $x=0.2$
- 11 and -11
- undefined
- -13
- 15
- $2\frac{2}{5}$
- -0.7
- -5
- 13
- 19.5 cm
- 38.47 m²
- $\sqrt{315}$ m