

Rational Numbers Worksheet

What Are Rational Numbers?

A **rational number** is any number that can be written as a fraction $\frac{a}{b}$, where **a** and **b** are integers and **b** is not equal to "0"

Examples:

- $\frac{3}{4}$
- -2 (can be written as: $\frac{-2}{1}$)
- .05 (can be written as $\frac{1}{20}$)
- 0 (can be written as $\frac{0}{1}$)

Part A: Identify Rational Numbers: Write **Yes** if the number is rational and **No** if it is not.

- | | |
|------------------------|--------------------------|
| 1. _____ $\frac{5}{8}$ | 6. _____ $\frac{-12}{7}$ |
| 2. _____ -3 | 7. _____ 0.333333... |
| 3. _____ 0.75 | 8. _____ $\sqrt{2}$ |
| 4. _____ $\sqrt{25}$ | 9. _____ 4 |
| 5. _____ π | 10. _____ $\frac{0}{5}$ |

Part B: Write Each Decimal as a Fraction: Simplify when possible.

- | | |
|--|---|
| 11. 0.5 = $\frac{\boxed{}}{\boxed{}}$ | 15. 0.8 = $\frac{\boxed{}}{\boxed{}}$ |
| 12. 0.25 = $\frac{\boxed{}}{\boxed{}}$ | 16. 2.5 = $\frac{\boxed{}}{\boxed{}}$ |
| 13. 0.75 = $\frac{\boxed{}}{\boxed{}}$ | 17. 0.125 = $\frac{\boxed{}}{\boxed{}}$ |
| 14. 1.2 = $\frac{\boxed{}}{\boxed{}}$ | 18. 1.75 = $\frac{\boxed{}}{\boxed{}}$ |

Part C: Write Each Fraction as a Decimal

19. $\frac{1}{2} =$ _____

23. $\frac{3}{8} =$ _____

20. $\frac{3}{4} =$ _____

24. $\frac{9}{20} =$ _____

21. $\frac{1}{5} =$ _____

25. $\frac{5}{4} =$ _____

22. $\frac{7}{10} =$ _____

26. $\frac{11}{2} =$ _____

Part D: Compare Rational Numbers: Choose $<$, $>$, or $=$

27. $\frac{1}{2}$ _____ 0.6

30. 1.25 _____ $\frac{5}{4}$

28. 0.75 _____ $\frac{3}{4}$

31. $\frac{7}{10}$ _____ 0.8

29. $\frac{2}{5}$ _____ 0.3

32. 0.45 _____ $\frac{1}{2}$

Part F: Word Problems

36. Sarah drank $\frac{3}{4}$ of a bottle of water. Write this amount as a decimal.

Answer: _____

37. A rope is 2.5 meters long. Write 2.5 as a fraction in simplest form.

Answer: $\frac{\boxed{}}{\boxed{}}$

38. A student scored 18 out of 20 on a quiz. Write the score as a fraction and decimal.

Answer: $\frac{\boxed{}}{\boxed{}}$ _____

39. A recipe calls for $\frac{1}{2}$ cup of sugar. How many cups is that as a decimal?

Answer: _____

40. A runner completed 0.75 of a race. Write this amount as a fraction in simplest form.

Answer: $\frac{\boxed{}}{\boxed{}}$