

Fractions and Decimals: Place Value and Equivalence

30 minutes, 3 stages

Understanding how fractions and decimals connect helps you read prices, measurements, and numbers in everyday life. When you see 0.5 or $\frac{1}{2}$, you are looking at the same amount written two different ways. This homework builds your skill in moving between fractions and decimals, and in recognizing what each digit means ([Outcome](#), [Knowledge](#)).

Stage 1: Identify Place Value (8 min)

Write the place value of the underlined digit in each number. Place value can be applied to decimal numbers in various ways.

1. 3.47, hundredths
2. 5.28
3. 42.3
4. 7.65
5. 0.09

Now write each number in words. Use the word "and" for the decimal point.

6. 2.5, two and five tenths
7. 3.47
8. 6.08
9. 0.3

Stage 2: Match Fractions to Decimals (12 min)

Fractions and decimals can represent the same number ([Knowledge](#)). Match each fraction on the left to its decimal on the right by writing the letter.

10. $\frac{1}{10}$, A. 0.25
11. $\frac{5}{10}$, B. 0.1
12. $\frac{25}{100}$, C. 0.5
13. $\frac{7}{100}$, D. 0.07
14. $\frac{50}{100}$, E. 0.50

Now write the decimal for each fraction.

15. $\frac{3}{10}$ = ____
16. $\frac{8}{100}$ = ____
17. $\frac{45}{100}$ = ____
18. $\frac{6}{10}$ = ____

Stage 3: Compare and Order (10 min)

Use $<$, $>$, or $=$ to compare these numbers ([Skills](#)).

19. 0.3 ____ 0.30

20. 0.5 ____ 0.50

21. 0.7 ____ 0.07

22. 2.4 ____ 2.04

23. 0.25 ____ 0.52

Put these numbers in order from smallest to largest.

24. 0.6, 0.06, 0.60, 0.16

25. 1.2, 1.02, 2.1, 0.21

Self-check

Ask yourself these questions. If you answer "yes" to all three, you are ready.

- Can you name the place value (tenths or hundredths) of any digit in a decimal number?
- Can you write a fraction as a decimal when the denominator is 10 or 100?
- Can you tell which decimal is larger when you compare two numbers like 0.3 and 0.30?