

Number Sense: Decimal Division

You have learned how to estimate when dividing with decimals. You can also use number sense to place the decimal point in the quotient.

How many quarters are in \$3.50?

When you divide decimals by decimals, you can just divide the decimals as if they are whole numbers. After finding the quotient, place the decimal by estimation.

$\$3.50 \div 0.25 = ?$ Write the original problem

$\begin{array}{r} \downarrow \quad \downarrow \\ 350 \div 25 = 14 \end{array}$ Whole-number division

Place the decimal: 14. Use estimation

How many quarters are in \$3.50? _____

For questions 1-4, place the decimal correctly.

1. $9.72 \div 3.6 = 27$ _____ 2. $6.39 \div 0.72 = 8875$ _____

3. $0.81 \div 0.09 = 90$ _____ 4. $1.08 \div 0.27 = 40$ _____

5. Nathan and Jorge are working on a decimal division problem in math class. After finishing the problem, it looked like this: $4.76 \div 2.5 = 0.19$. Nathan said that the decimal is incorrectly placed in the quotient, and Jorge disagrees. Who is right? Explain your answer.

6. Is 1.72 a reasonable answer for $86.25 \div 0.5$?

Name _____

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Use estimation to place each decimal point.

1. $7.84 \div 0.28 = 280$ _____
2. $0.65 \div 0.13 = 050$ _____
3. $0.144 \div 1.2 = 120$ _____
4. $9.61 \div 31 = 031$ _____
5. $25.2 \div 0.42 = 060$ _____
6. $8.4 \div 0.2 = 42$ _____
7. $14.74 \div 2.2 = 670$ _____
8. $28.9 \div 0.17 = 170$ _____
9. $48.4 \div 0.22 = 220$ _____
10. $7.6 \div 3.3 = 230$ _____
11. $101.6 \div 6.8 = 1494$ _____
12. $0.148 \div 0.2 = 074$ _____
13. $9.6 \div 0.12 = 080$ _____
14. $75.15 \div 15.12 = 497$ _____
15. $9.824 \div 3.2 = 307$ _____
16. $0.93 \div 31 = 0030$ _____
17. $22.785 \div 14.7 = 155$ _____
18. $11.56 \div 0.34 = 0340$ _____

19. Mr. Harrison bought 42 kilograms of salt for his science classes. Each group needs 0.75 kilogram of salt for their experiment. How many groups does Mr. Harrison have in his science classes?

- A** 0.56 **B** 5.6 **C** 56 **D** 560

20. Roman and Ranjan each divided 3.56 by 0.72. Roman got 4.94 for his quotient. Ranjan got 0.04 for his quotient. Which student divided correctly? How do you know?
