

Fractions, Decimals, and Rational Numbers

Name: _____

Date: _____

Score: _____ / 18

Quick Review and Helpful Hints

A *rational number* can be written as a fraction $\frac{a}{b}$ of integers. Turn a fraction into a decimal by dividing the top by the bottom. A decimal that *terminates* or *repeats* is rational. To compare, write both numbers in the same form.

▷ **Example:** Write $\frac{3}{4}$ as a decimal. **Work:** Divide the top by the bottom: $3 \div 4 = 0.75$.

★ **Answer:** 0.75

$$\frac{1}{2} = 0.5 = 50\%$$

◆ Practice Problems

Convert or compare as directed.

1. $\frac{1}{2}$ as a decimal _____

8. $\frac{1}{10}$ as a decimal _____

2. $\frac{3}{4}$ as a decimal _____

9. $\frac{3}{5}$ as a decimal _____

3. $\frac{1}{4}$ as a decimal _____

10. 0.75 as a fraction _____

4. $\frac{2}{5}$ as a decimal _____

11. $\frac{7}{10}$ as a decimal _____

5. $\frac{1}{5}$ as a decimal _____

12. Is 0.5 rational? _____

6. 0.5 as a fraction _____

13. $\frac{1}{8}$ as a decimal _____

7. 0.25 as a fraction _____

14. 0.2 as a fraction _____

◆ Word Problems

15. A pizza is cut and you eat $\frac{3}{4}$ of it. Write that as a decimal. _____

16. A gas tank is filled to 0.5 of its capacity after a commute. What fraction of the tank is full, in simplest form? _____

17. Which is larger, $\frac{1}{2}$ or 0.4? _____

18. Convert $\frac{2}{5}$ to a decimal. _____



Answer Keys

- | | | |
|--------------------------------------|--------------------------------------|--|
| 1. <input type="text" value="0.5"/> | 7. <input type="text" value="1/4"/> | 13. <input type="text" value="0.125"/> |
| 2. <input type="text" value="0.75"/> | 8. <input type="text" value="0.1"/> | 14. <input type="text" value="1/5"/> |
| 3. <input type="text" value="0.25"/> | 9. <input type="text" value="0.6"/> | 15. <input type="text" value="0.75"/> |
| 4. <input type="text" value="0.4"/> | 10. <input type="text" value="3/4"/> | 16. <input type="text" value="1/2"/> |
| 5. <input type="text" value="0.2"/> | 11. <input type="text" value="0.7"/> | 17. <input type="text" value="1/2"/> |
| 6. <input type="text" value="1/2"/> | 12. <input type="text" value="Yes"/> | 18. <input type="text" value="0.4"/> |

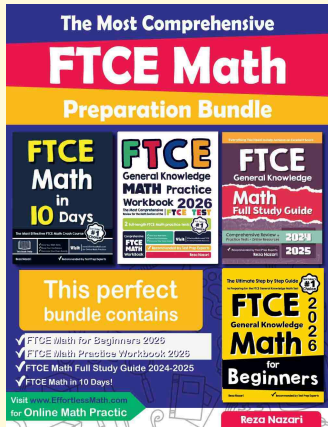
Step-by-Step Explanations

1. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $1 \div 2 = 0.5$. So the final answer is 0.5.
2. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $3 \div 4 = 0.75$. So the final answer is 0.75.
3. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $1 \div 4 = 0.25$. So the final answer is 0.25.
4. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $2 \div 5 = 0.4$. So the final answer is 0.4.
5. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $1 \div 5 = 0.2$. So the final answer is 0.2.
6. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.5 = \frac{5}{10} = \frac{1}{2}$. So the final answer is $\frac{1}{2}$.
7. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.25 = \frac{25}{100} = \frac{1}{4}$. So the final answer is $\frac{1}{4}$.
8. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $1 \div 10 = 0.1$. So the final answer is 0.1.
9. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $3 \div 5 = 0.6$. So the final answer is 0.6.
10. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.75 = \frac{75}{100} = \frac{3}{4}$. So the final answer is $\frac{3}{4}$.
11. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $7 \div 10 = 0.7$. So the final answer is 0.7.
12. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is It terminates, so yes, rational. So the final answer is Yes.
13. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $1 \div 8 = 0.125$. So the final answer is 0.125.
14. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.2 = \frac{2}{10} = \frac{1}{5}$. So the final answer is $\frac{1}{5}$.
15. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $3 \div 4 = 0.75$. So the final answer is 0.75.
16. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $0.5 = \frac{1}{2}$. So the final answer is $\frac{1}{2}$.
17. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $\frac{1}{2} = 0.5 > 0.4$. So the final answer is $\frac{1}{2}$.
18. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is $2 \div 5 = 0.4$. So the final answer is 0.4.



Keep Building FTCE General Knowledge Math Skills

Recommended Effortless Math resources



The Most Comprehensive
FTCE Math
Preparation Bundle


This perfect bundle contains

- ✓ FTCE Math for Beginners 2026
- ✓ FTCE Math Practice Workbook 2026
- ✓ FTCE Math Full Study Guide 2024-2025
- ✓ FTCE Math in 10 Days!

Visit www.EffortlessMath.com for Online Math Practice

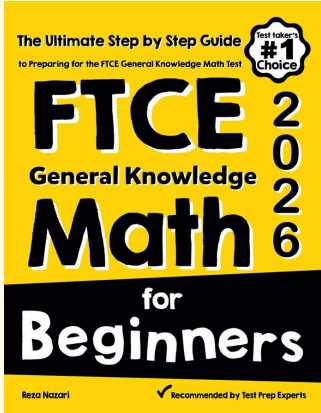
Reza Nazari

The Most Comprehensive FTCE Math Preparation Bundle



Scan Me
Download Instantly

STUDENT FAVORITE - FTCE General Knowledge Math for Beginners



The Ultimate Step by Step Guide
to Preparing for the FTCE General Knowledge Math Test

FTCE 2026
General Knowledge
Math 2026
for
Beginners

Reza Nazari


Recommended by Test Prep Experts

FTCE General Knowledge Math for Beginners 2026

Step-by-step lessons, topic practice, and full review support for students who want a calm path through FTCE General Knowledge Math preparation.

A strong companion for self-study, tutoring, homework, and targeted review.

PDF Edition



Scan Me
Download Instantly