

Foundation GCSE: Percentages, Fractions & Decimals

Name: _____

Class: _____

Instructions: Answer all questions. Questions are ordered from easiest (1) to hardest (20). Working out should be shown where appropriate.

1. Write $\frac{1}{4}$ as a decimal.
2. Write 0.7 as a fraction in its simplest form.
3. Write 75% as a fraction in its simplest form.
4. Write 0.6 as a percentage.
5. Write $\frac{3}{4}$ as a percentage.
6. Write 45% as a decimal.
7. Order the following from smallest to largest: 0.6, 55%, $\frac{3}{5}$.
8. Write $\frac{2}{5}$ as a decimal.
9. Write 125% as a mixed number in its simplest form.
10. Write 0.125 as a fraction in its simplest form.
11. Order from smallest to largest: $\frac{7}{8}$, 0.82, 85%.
12. Write 3.5% as a decimal.
13. Write 0.04 as a fraction in its simplest form.
14. Convert $\frac{3}{8}$ into a decimal.
15. Write $\frac{5}{8}$ as a percentage.
16. Write 0.625 as a fraction in its simplest form.
17. Convert the recurring decimal $0.\dot{3}$ into a fraction in its simplest form.
18. Order from smallest to largest: $\frac{4}{5}$, 0.81, 80.5%, $\frac{13}{16}$.
19. Write 1.15 as a percentage.
20. Convert the recurring decimal $0.\dot{6}\dot{3}$ into a fraction in its simplest form.

Answers & Worked Solutions

1. 0.25
 $1 \div 4 = 0.25$.
2. $\frac{7}{10}$
Direct place value conversion.
3. $\frac{3}{4}$
 $\frac{75}{100} = \frac{3}{4}$.
4. 60%
 $0.6 \times 100 = 60\%$.
5. 75%
 $\frac{3}{4} = \frac{75}{100} = 75\%$.
6. 0.45
 $45 \div 100 = 0.45$.
7. 55%, 0.6, $\frac{3}{5}$
 $55\% = 0.55$, $0.6 = 0.60$, $\frac{3}{5} = 0.60$ (Note: 0.6 and $\frac{3}{5}$ are equal).
8. 0.4
Multiply numerator and denominator by 2 to get
 $\frac{4}{10}$.
9. $1\frac{1}{4}$
 $\frac{125}{100} = \frac{5}{4} = 1\frac{1}{4}$.
10. $\frac{1}{8}$
 $\frac{125}{1000} = \frac{1}{8}$.
11. 0.82, 85%, $\frac{7}{8}$
0.82, 0.85, 0.875.
12. 0.035
 $3.5 \div 100 = 0.035$.
13. $\frac{1}{25}$
 $\frac{4}{100} = \frac{1}{25}$.
14. 0.375
 $3 \div 8 = 0.375$.
15. 62.5%
 $\frac{5}{8} = 5 \div 8 = 0.625$, then $0.625 \times 100 = 62.5\%$.
16. $\frac{5}{8}$
 $\frac{625}{1000} = \frac{5}{8}$.
17. $\frac{1}{3}$
Standard recurring decimal conversion.
18. $\frac{4}{5}$, 80.5%, 0.81, $\frac{13}{16}$
Convert to decimals: 0.80, 0.805, 0.81, 0.8125.
19. 115%
 $1.15 \times 100 = 115\%$.
20. $\frac{7}{11}$
Let $x = 0.6363\dots$, $100x = 63.6363\dots$, $99x = 63 \implies \frac{63}{99} = \frac{7}{11}$.