



Relationship between percentages, fractions, and decimals

Mana Maths

Te reo Māori terms



ōrau

percentage

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hautau

fraction

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tau ā-ira

decimal

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takahuri

convert

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Foundation

1. Convert $\frac{1}{2}$ to a decimal.

2. Convert $\frac{1}{4}$ to a percentage.

3. Convert 0.3 to a percentage.

4. Convert 25% to a decimal.

5. Convert $\frac{3}{4}$ to a decimal.

6. Convert $\frac{1}{10}$ to a percentage.

7. Convert 0.6 to a fraction in simplest form.

8. Convert 50% to a fraction.

9. Convert 0.8 to a percentage.

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

11. Convert 75% to a decimal.

12. Convert 0.2 to a fraction in simplest form.

- 13.** Convert $\frac{9}{10}$ to a percentage. **14.** Convert 40% to a decimal. **15.** Convert $\frac{1}{5}$ to a decimal.
- 16.** Convert 0.05 to a percentage. **17.** Which is greater: $\frac{1}{2}$ or 40%? **18.** Which is smaller: 0.7 or 80%?

Proficient

1. Convert $\frac{3}{5}$ to a decimal and a percentage.
2. Convert $\frac{7}{10}$ to a decimal and a percentage.
3. Convert 0.45 to a percentage and a fraction in simplest form.
4. Convert 0.125 to a percentage.
5. Convert 62% to a decimal.
6. Convert 35% to a fraction in simplest form.
7. Convert $\frac{7}{20}$ to a decimal.
8. Convert $\frac{9}{20}$ to a percentage.
9. Convert 0.375 to a fraction in simplest form.
10. Convert 12.5% to a decimal.
11. Convert $\frac{11}{20}$ to a percentage.
12. Convert 0.04 to a fraction in simplest form.

- 13.** Fill in the blank: $\frac{3}{4} = 0.\square = \square\%$. Fill in the blank: $0.6 = \frac{\square}{5} = \square\%$. Are 0.25, 25%, and $\frac{1}{4}$ equivalent?
- 16.** Are $\frac{2}{5}$ and 45% equivalent?
- 17.** Put in ascending order: 30%, $\frac{1}{4}$, 0.4.
- 18.** Explain in one short sentence how you turn a decimal into a percentage.

Excellence

1. A student says $0.35 = 35\% = \frac{35}{100}$. Are they correct? Explain.
2. A student says $\frac{7}{20} = 0.38 = 38\%$. Are they correct? Explain.
3. Convert 87.5% to a fraction in simplest form.
4. Convert $\frac{13}{20}$ to a decimal and a percentage.
5. Convert 0.625 to a fraction in simplest form and a percentage.
6. Which is greater: 65% or $\frac{2}{3}$? Show enough working to justify.
7. Which is smaller: 0.48 or $\frac{1}{2}$? Explain.
8. Fill in the blank: $\frac{\square}{8} = 0.625 = 62.5\%$ in the blank: $45\% = 0.45$

10. Fill in the blank: $0.2 = 20\%$ ~~11.~~
in simplest form.

Put in descending order: $\frac{7}{10}$, 68%, 0.72.

12. Put in ascending order: 12.5%, $\frac{1}{5}$, 0.18.

13. Which does not belong: 0.4, 40%, $\frac{4}{10}$, $\frac{1}{5}$?

14. Complete: a number equivalent to $\frac{3}{5}$ is _____ as a percentage.

15. Complete: a decimal equivalent to 125% is _____.

16. A test score was 18 out of 24. Write this as a fraction in simplest form, a decimal, and a percentage.

17. A bottle is 0.75 full. Write this as a fraction and a percentage.

18. Explain why $\frac{1}{3}$ cannot be written as a terminating decimal even though it can be written as a percentage.