

Equivalent fractions, decimals, percents: first walk

CURRICULUM ALIGNMENT

NUM.FRC.4a

explore (model, compare and convert) the relationships between fractions, decimals and percentages.

NUM.PVT.4

investigate how decimals and percentages (and fractions) can be compared, ordered and expressed in related terms.

INTERACTIVES Phone Battery · challenge, display, explore

WHAT THIS LESSON TEACHES

The same amount can be written as a fraction, a decimal and a percent: three different labels for one quantity.

→ Half a pizza is $\frac{1}{2}$, 0.5 and 50%: all the same amount.

→ $\frac{1}{4}$ is 25 hundredths: $\frac{25}{100} = 0.25 = 25\%$.

MODEL THIS ON THE BOARD

TURN $\frac{1}{4}$ INTO THREE LABELS

- 1 Read $\frac{1}{4}$ as twenty-five hundredths so write $\frac{25}{100}$.
- 2 The decimal uses the hundredths place: **0.25**.
- 3 The percent is the top number out of 100: **25%**.

ANSWER KEY

Scaffold: visual check on the page

Q1: $\frac{1}{2} = 0.5 = 50\%$

Q2: $0.25 = 25\%$

Q3: $\frac{1}{5} = 0.2 = 20\%$

Q4: $\frac{3}{4} = 0.75 = 75\%$

a) Always : They are three labels for exactly the same quantity.

b) Always : All three name twenty-five hundredths.

c) Never : $\frac{3}{4}$ is 75%, not 50%.

d) Sometimes : True for $\frac{1}{2} = 0.5$ and $\frac{1}{4} = 0.25$; false for $\frac{1}{5} = 0.2$.

EXTENSION SHEET · STRETCH ANSWERS

S1: $0.75 = \frac{3}{4} = 75\%$

S2: $75\% = \frac{3}{4} = 0.75$

S3: $\frac{3}{5} = 0.6 = 60\%$

S4: $\frac{3}{5} = 0.6 = 60\%$

S5: $0.75 = \frac{3}{4} = 75\%$