

Percent Point Match

Match decimals, percents, models, and number lines.

GRADE 6 • 6.NS.1.b

6.NS.1.b "Represent and determine equivalencies among decimals (through the thousandths place) and percents incorporating the use of number lines, and concrete and pictorial models.*"

NAME _____

DATE _____

ONE AMOUNT, TWO NAMES

To change a decimal to a percent, multiply by 100 and write the percent sign. To change a percent to a decimal, divide by 100. On a number line from 0 to 1, matching decimals and percents name the same point, and a shaded model can show the same part.

WORKED EXAMPLE

Write 0.625 as a percent.

1. Multiply 0.625 by 100.
2. $625 \times 100 = 62.5$.
3. Write the percent sign.

Answer: 62.5%

PRACTICE 6 problems

- 1** Write 0.48 as a percent.

ANSWER _____

- 2** Write 7.2% as a decimal.

ANSWER _____

- 3** A rectangle is split into 1,000 equal small squares. There are 305 shaded squares. Write the shaded part as a decimal and a percent.

ANSWER _____

- 4** A number line goes from 0 to 1 and has equal tick marks every 0.1. Point P is at 0.7. What percent names point P?

ANSWER _____

- 5** A number line goes from 0 to 0.2 and has equal tick marks every 0.025. Point Q is at 0.125. What percent names point Q?

ANSWER _____

- 6** Write 0.009 as a percent.

ANSWER _____

APPLY IT Show your work

- 1** A game progress bar shows that 18.5% of a quest is complete. Write this amount as a decimal.

WORK SPACE

ANSWER _____

- 2** A student has watched 0.405 of an online art tutorial. What percent of the tutorial has the student watched?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A 1,000-square grid has 80 shaded squares. Write the shaded part as a decimal and a percent. Explain why the percent is not 80%.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write 0.48 as a percent.	48%
2	Write 7.2% as a decimal.	0.072
3	A rectangle is split into 1,000 equal small squares. There are 305 shaded squares. Write the shaded part as a decimal and a percent.	0.305 and 30.5%
4	A number line goes from 0 to 1 and has equal tick marks every 0.1. Point P is at 0.7. What percent names point P?	70%
5	A number line goes from 0 to 0.2 and has equal tick marks every 0.025. Point Q is at 0.125. What percent names point Q?	12.5%
6	Write 0.009 as a percent.	0.9%

PART 2 • APPLY IT

1. **0.185** Divide 18.5 by 100. Move the decimal point two places left to get 0.185.
2. **40.5%** Multiply 0.405 by 100. The result is 40.5%, so that is the percent watched.

CHALLENGE

0.080, or 0.08, and 8%. Since $80/1,000 = 8/100$, the shaded part is 8%.

Accept equivalent decimal forms with trailing zeros, such as 0.080 and 0.08. Accept percent answers written with a decimal when needed, such as 0.9%.