Percent Basics

Year 5 and Grade 5 · Fractions, Decimals and Percentages · Free lesson

In this pack: page 1 teacher guide · page 2 task cards (cut apart) · page 3 practice · page 4 answer key.

STANDARDS, LISTED ONE BY ONE

- CCSS 4.NF.C.6: Use decimal notation for fractions with denominators 10 or 100.
- England Year 5: understand percent as parts out of 100, and write percentages as fractions with denominator 100 and as decimals.
- Honest note: percent has no Common Core code before Grade 6. This lesson anchors on 4.NF.C.6 and prepares for 6.RP.A.3c.

WHAT IS INSIDE AND SKILLS

23 slides, 8 shade and name task cards, and a practice page with 17 questions. Pupils learn that percent means parts out of 100. They count shaded squares on a hundredths grid and name one amount three ways: as a fraction with denominator 100, as a decimal, and as a percent. They write percents as fractions and decimals, read decimals and fractions as percents, and learn the benchmark set: one half, one quarter, three quarters, fifths, one tenth and the whole.

HOW TO USE AND TIMING

1. Teach the slides first (about 25 minutes). Count full grid columns aloud, then extra squares.
2. Hand out the task cards on page 2 (about 10 minutes). Pupils write all three names on each card.
3. Set the practice page on page 3 (about 15 minutes). The worked example at the top uses the 37 grid from the slides.
4. Mark from the filled in answer key on page 4, then give the 3 question exit check from the final slides.

MATERIALS

The lesson slides and a board, printed task cards (page 2), scissors, pencils, and the practice page (page 3). Crayons help pupils shade and check grid counts.

SUCCESS LOOK-FORS

Success looks like this: the pupil counts the shaded squares out of 100, writes the fraction with denominator 100, writes the decimal with the same count after the point, and adds the percent sign. Watch for 0.8 read as 8 percent and for 50 percent read as 50 out of 50.

WHERE THIS GOES NEXT

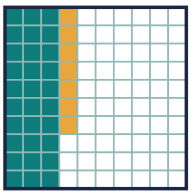
This free lesson teaches percent basics fully, and the members lessons in this pack take the next steps. FDP Conversions teaches swapping between all three forms in every direction. Comparing Fractions Decimals and Percentages teaches ordering mixed forms and proving the order. Percentage of Amounts teaches finding a percent of a real amount like money. FDP Word Problems and Review mixes all three forms in test style problems.

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Percent Basics - Task Cards: Cut Apart and Solve

Cut out the cards. On each card, count the shaded squares. Then write all three names for the shaded amount.

Card 1: Shade and Name



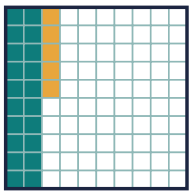
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 2: Shade and Name



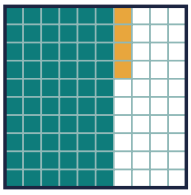
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 3: Shade and Name



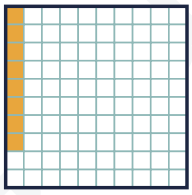
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 4: Shade and Name



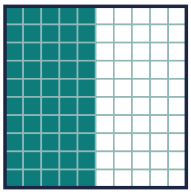
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 5: Shade and Name



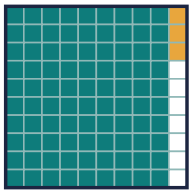
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 6: Shade and Name



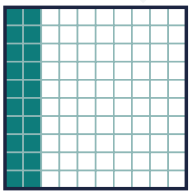
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 7: Shade and Name



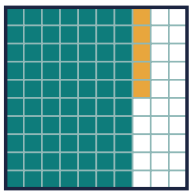
Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

Card 8: Shade and Name



Fraction: _____ /100

Decimal: _____

Percent: _____ %

The grid has 100 squares in all.

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Percent Basics

Name: _____ Date: _____ Class: _____

Worked example: name the shaded amount in three forms.



Count the shaded squares: 3 full columns (30) and 7 more make 37 out of 100.

Fraction: 37/100. Decimal: 0.37. Percent: 37%.

Part A - Name the Shaded Grid Amount

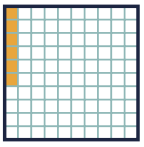
Count the shaded squares. Write the fraction, the decimal and the percent.

1. 

Fraction: _____ /100

Decimal: _____

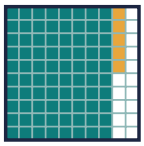
Percent: _____ %

2. 

Fraction: _____ /100

Decimal: _____

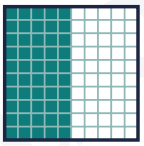
Percent: _____ %

3. 

Fraction: _____ /100

Decimal: _____

Percent: _____ %

4. 

Fraction: _____ /100

Decimal: _____

Percent: _____ %

Part B - Write Percents as Fractions and Decimals

The percent number is the count out of 100.

1. 48%

Fraction: ____ /100

Decimal: _____

2. 9%

Fraction: ____ /100

Decimal: _____

3. 73%

Fraction: ____ /100

Decimal: _____

4. 100%

Fraction: ____ /100

Decimal: _____

Part C - Write Decimals as Percents

Read the decimal as hundredths first.

1. 0.63

Percent: _____ %

2. 0.04

Percent: _____ %

3. 0.8

Percent: _____ %

4. 1.0

Percent: _____ %

Part D - Benchmark Matching

Draw a line from each fraction to its decimal, then to its percent.

Fraction	Decimal	Percent
1/2	0.25	75%
1/4	0.1	10%
3/4	0.75	50%
1/5	0.5	20%
1/10	0.2	25%

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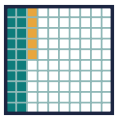
Answer Key - Percent Basics (Filled In)

Task Cards (page 2) - answers in place



Card 1: 37/100, 0.37, 37%

37 squares shaded out of 100.



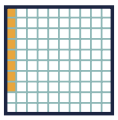
Card 2: 25/100, 0.25, 25%

25 squares shaded out of 100.



Card 3: 64/100, 0.64, 64%

64 squares shaded out of 100.



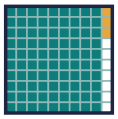
Card 4: 8/100, 0.08, 8%

8 squares shaded out of 100.



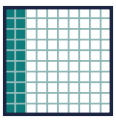
Card 5: 50/100, 0.5, 50%

50 squares shaded out of 100.



Card 6: 93/100, 0.93, 93%

93 squares shaded out of 100.



Card 7: 20/100, 0.2, 20%

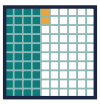
20 squares shaded out of 100.



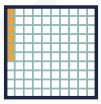
Card 8: 75/100, 0.75, 75%

75 squares shaded out of 100.

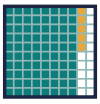
Part A - Name the Shaded Grid Amount



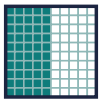
A1: 42/100, 0.42, 42%



A2: 6/100, 0.06, 6%



A3: 85/100, 0.85, 85%



A4: 50/100, 0.5, 50%

Part B - Write Percents as Fractions and Decimals

48% = 48/100 = 0.48

9% = 9/100 = 0.09

73% = 73/100 = 0.73

100% = 100/100 = 1

Part C - Write Decimals as Percents

0.63 = 63%

0.04 = 4%

0.8 = 80%

1.0 = 100%

Part D - Benchmark Matching

1/2 = 0.5 = 50%

1/4 = 0.25 = 25%

3/4 = 0.75 = 75%

1/5 = 0.2 = 20%

1/10 = 0.1 = 10%

1/1 = 100%

Exit check: 29% = 29/100 = 0.29. 56 out of 100 = 56% and 0.56. 0.9 = 90%.

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