

Grade 4 · Decimal Fractions and Decimal Notation · Worksheet Answer Key

Common Core 4.NF.C.5, 4.NF.C.6, 4.NF.C.7 · mathovore.fr

Every solution shows how a fraction becomes a decimal, how tenths are renamed as hundredths, and how decimals are compared. Check each step against your own work, and find the first step where your answer differs from the key.

Grade 4 Common Core: 4.NF.C.5 · 4.NF.C.6 · 4.NF.C.7

Problem 1: Shaded tenths

The strip has 10 equal parts and 6 are shaded.

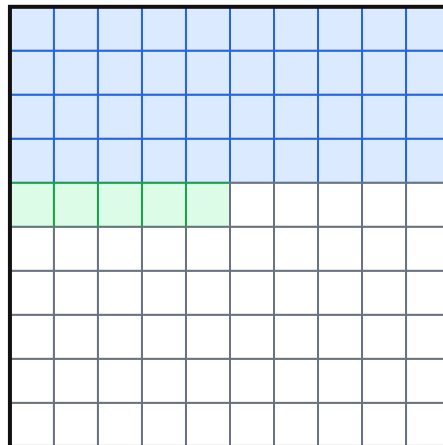
$$\frac{6}{10} = 0.6$$

Answer: $\frac{6}{10} = 0.6$

Problem 2: Shaded hundredths

Four full rows are 4 tenths, and 5 more squares are 5 hundredths: $\frac{4}{10} + \frac{5}{100} = \frac{45}{100}$.

Answer: $\frac{45}{100} = 0.45$



4 tenths + 5 hundredths = 45 hundredths.

Problem 3: Tenths to decimal

Eight tenths has the 8 in the tenths place.

Answer: 0.8

Problem 4: Decimal to tenths

The 9 is in the tenths place, so the denominator is 10.

Answer: $\frac{9}{10}$

Problem 5: Hundredths to decimal

Twenty-three hundredths: 2 tenths and 3 hundredths.

Answer: 0.23

Problem 6: Decimal to hundredths

The 7 is in the hundredths place, so the denominator is 100.

Answer: $\frac{7}{100}$

Problem 7: Tenths as hundredths

$$\frac{4}{10} = \frac{4 \times 10}{10 \times 10} = \frac{40}{100}$$

As a decimal, $\frac{40}{100} = 0.40 = 0.4$.

Answer: $\frac{40}{100} = 0.4$

Problem 8: Decimal as hundredths

Six tenths is the same as 60 hundredths because $\frac{6}{10} = \frac{60}{100}$.

Answer: $\frac{60}{100}$

Problem 9: Place value chart

The 5 is in the ones place, so it is worth 5.

The 3 is in the tenths place, so it is worth $0.3 = \frac{3}{10}$.

The 8 is in the hundredths place, so it is worth $0.08 = \frac{8}{100}$.

Answer: $5 + 0.3 + 0.08 = 5.38$

Problem 10: Expanded form

There are 2 ones, 4 tenths, and 9 hundredths.

Answer: 2.49

Problem 11: Tenths plus hundredths

$$\frac{3}{10} = \frac{30}{100}$$

$$\frac{30}{100} + \frac{5}{100} = \frac{35}{100} = 0.35$$

Answer: $\frac{35}{100} = 0.35$

Problem 12: Adding fractions with different denominators

$$\frac{2}{10} = \frac{20}{100}$$

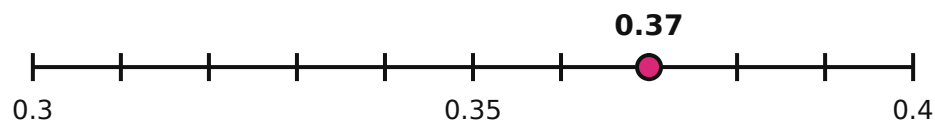
$$\frac{20}{100} + \frac{47}{100} = \frac{67}{100}$$

Answer: 0.67

Problem 13: Point on a number line

The line from 0.3 to 0.4 has 10 equal steps, so each step is 0.01. Point P is 7 steps after 0.3.

Answer: $0.37 = \frac{37}{100}$



Point P is at 0.37.

Problem 14: Compare 0.4 and 0.38

Write 0.4 as 0.40. Forty hundredths is more than thirty-eight hundredths.

Answer: $0.4 > 0.38$

Problem 15: Compare 0.09 and 0.9

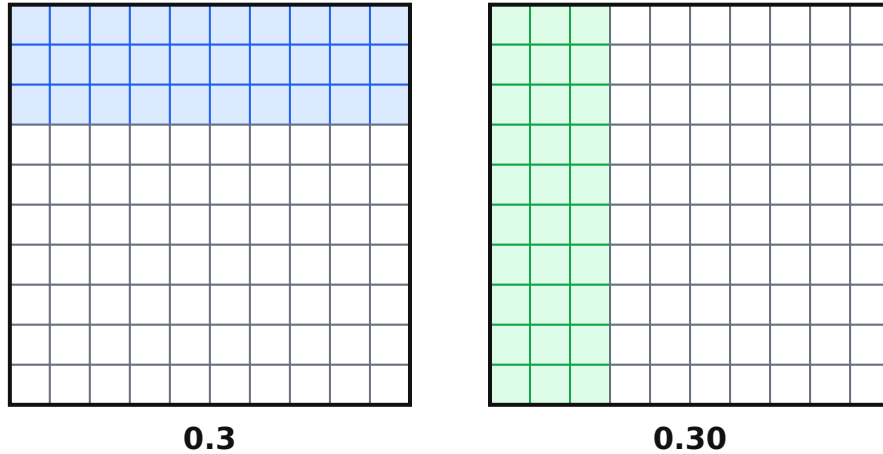
0.09 is 9 hundredths. 0.9 is 9 tenths, or 90 hundredths.

Answer: $0.09 < 0.9$

Problem 16: Same amount?

Each grid has 30 of 100 squares shaded. Three tenths and thirty hundredths cover the same amount: $\frac{3}{10} = \frac{30}{100}$.

Answer: **No**, $0.3 = 0.30$



Same shaded amount, so $0.3 = 0.30$.

Problem 17: Order four decimals

As hundredths: 0.50, 0.45, 0.54, 0.05.

The order is 5, 45, 50, 54 hundredths.

Answer: 0.05, 0.45, 0.5, 0.54

Problem 18: Dimes and pennies

A dime is $\frac{1}{10}$ of a dollar. A penny is $\frac{1}{100}$ of a dollar.

$$\frac{3}{10} + \frac{6}{100} = \frac{30}{100} + \frac{6}{100} = \frac{36}{100}$$

Answer: $\frac{36}{100}$ of a dollar, or \$0.36

Problem 19: Who ran farther?

Write 0.7 as 0.70. Seventy hundredths is more than sixty-five hundredths.

Answer: **Ethan ran farther**, $0.70 > 0.65$

Problem 20: Rainy days

$0.3 = 0.30 > 0.28$, so Monday had more rain.

$$\frac{3}{10} + \frac{28}{100} = \frac{30}{100} + \frac{28}{100} = \frac{58}{100} = 0.58$$

Answer: **Monday; 0.58 inch in all**

Problem 21: School garden

Tomatoes: $\frac{27}{100} = 0.27$.

Carrots: $\frac{31}{100} = \frac{30}{100} = 0.30$. Carrots cover more because $0.30 > 0.27$.

$$\frac{27}{100} + \frac{30}{100} = \frac{57}{100} = 0.57$$

Answer: **Carrots cover more; 0.57 of the garden is planted**

Problem 22: Bike rides in order

As hundredths: 0.80, 0.75, 0.08.

Shortest to longest: 0.08, 0.75, 0.8.

The longest is $0.8 = \frac{8}{10}$.

Answer: 0.08, 0.75, 0.8; **longest $\frac{8}{10}$ mile**

Problem 23: Bake sale cookies

Chocolate chip: $\frac{31}{100} = \frac{30}{100} = 0.30$. Oatmeal: $\frac{24}{100} = 0.24$.

There were more chocolate chip because $0.30 > 0.24$.

$$\frac{30}{100} + \frac{24}{100} = \frac{54}{100} = 0.54$$

Answer: **Chocolate chip; 0.54 of the cookies**

Problem 24: Ribbon for a gift

$$\frac{7}{10} = \frac{70}{100}$$

$$\frac{70}{100} + \frac{15}{100} = \frac{85}{100} = 0.85 \text{ yard.}$$

She needs $0.9 = 0.90$ yard, and $0.85 < 0.90$. She is short by $\frac{90}{100} - \frac{85}{100} = \frac{5}{100}$ yard.

Answer: **No; she needs 0.05 yard more**