



TABE Math-E

PAXEN

Unit-4 Fractions

Lesson 28

Fractions to a Whole

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Some graphics may not have copied well during the scan process.

Math-E - Lesson 28 – Fractions to a Whole

Lesson 28

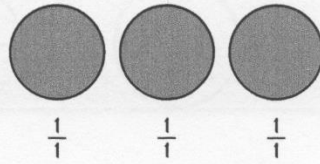
Relate Fractions and Whole Numbers

3.NF.3.c – High

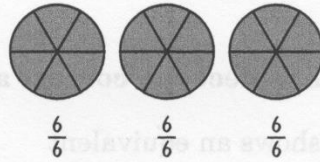
It sometimes helps to think of whole numbers as fractions. For example, if you have a one-dollar bill, you know you can trade it for 4 quarters. You can do this because 1 is equal to $\frac{4}{4}$.

Example Sal baked 3 pies. Each pie is cut into 6 equal pieces. How many sixths of a pie are there?

1) Draw three whole pies. The whole number 3 is the same as the fraction $\frac{3}{1}$.



2) Divide each pie into 6 equal parts. Each part is $\frac{1}{6}$ of a whole pie.



3) Count the total number of sixths.


$$6 + 6 + 6 = 18$$

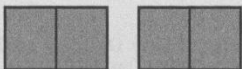
There are 18 pieces. 3 wholes are the same as $\frac{18}{6}$.

Test Example

1. Which fraction is equal to $\frac{2}{1}$?

- A. $\frac{1}{2}$
- B. $\frac{2}{4}$
- C. $\frac{2}{2}$
- D. $\frac{4}{2}$

1. D Draw $\frac{2}{1}$.  If you divide each whole into two equal parts, there will be 4 halves, or $\frac{4}{2}$.



Hint

Draw a picture to help understand the problem.

Math-E - Lesson 28 – Fractions to a Whole

Practice

Read each question. Select the correct answer.

- 1 How many thirds are in 1 whole?
A. 1
B. 2
C. 3
D. 4
- 2 $4 = ?$
A. $\frac{1}{4}$
B. $\frac{2}{4}$
C. $\frac{4}{8}$
D. $\frac{4}{1}$
- 3 Which fraction is **NOT** equal to 1?
A. $\frac{2}{2}$
B. $\frac{1}{2}$
C. $\frac{1}{1}$
D. $\frac{3}{3}$
- 4 $\frac{10}{2} = ?$
A. 2
B. 5
C. 8
D. 10
- 5 How many halves are in 3?
A. 2
B. 4
C. 6
D. 8
- 6 How many fourths are in 2?
A. 2
B. 4
C. 6
D. 8
- 7 Which fraction is equal to 1?
A. $\frac{1}{8}$
B. $\frac{7}{8}$
C. $\frac{8}{8}$
D. $\frac{9}{8}$
- 8 $? = \frac{12}{6}$
A. 2
B. 6
C. 12
D. 18
- 9 $\frac{15}{3} = ?$
A. 3
B. 5
C. 12
D. 15
- 10 Which fraction is equal to 6?
A. $\frac{6}{6}$
B. $\frac{1}{6}$
C. $\frac{6}{3}$
D. $\frac{6}{1}$

Math-E - Lesson 28 – Fractions to a Whole

Lesson 28

Relate Fractions and Whole Numbers

(3.NF.3.c)

- 1. C.** 1 whole = $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$. There are three thirds in 1 whole.
- 2. D.** The whole number 4 is the same as the fraction $\frac{4}{1}$.
- 3. B.** $\frac{2}{2}$, $\frac{1}{1}$, and $\frac{3}{3}$ are all the same as 1. One half is not equal to 1.
- 4. B.** 10 halves equal 5 wholes.
- 5. C.** There are 6 halves in 3 wholes.
- 6. D.** There are 4 fourths in 1 whole and 8 fourths in 2.
- 7. C.** 1 divided into eighths is $\frac{8}{8}$.
- 8. A.** $\frac{6}{6} = 1$; $\frac{12}{6} = 2$
- 9. B.** Five wholes divided into thirds is the same as $\frac{15}{3}$.
- 10. D.** One whole is $\frac{1}{1}$, so $6 = \frac{6}{1}$.

Practice 28

Relate Fractions and Whole Numbers

3.NF.3.c – High

- 1 Ujarak spends 6 half-hour sessions learning American Sign Language (ASL). How many hours does Ujarak spend learning ASL?

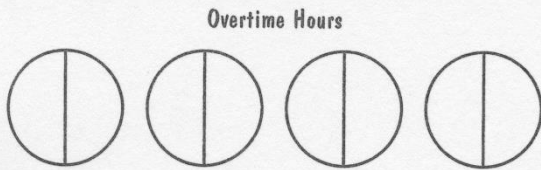
A. 9 hours B. 6 hours
C. 3 hours D. 1 hour

- 2 How many fifths are in 1 whole?

A. 1 B. 5
C. 10 D. 15

Use the information to answer question 3.

At a warehouse, four hours of overtime are divided among employees as shown.



- 3 **Part A**

Warehouse workers are awarded the same amount of overtime. How many warehouse workers are working overtime?

A. 4 workers
B. 8 workers
C. 12 workers
D. 16 workers

Part B

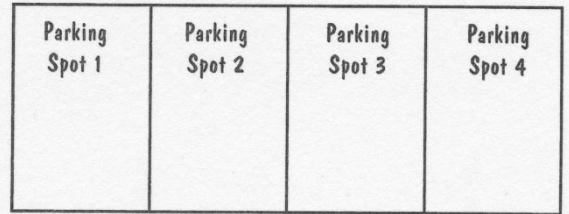
How much overtime does each warehouse worker get?

A. $\frac{1}{2}$ hour B. 1 hour
C. 2 hours D. 4 hours

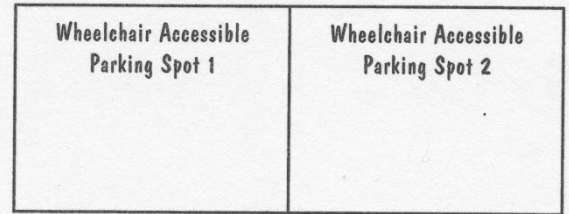
- 4 Which fraction is equal to 8?

A. $\frac{2}{8}$ B. $\frac{1}{8}$
C. $\frac{8}{4}$ D. $\frac{8}{1}$

- 5 Makayla needs to make two parking spots wheelchair accessible. She plans to make two wheelchair-accessible parking spots out of four existing parking spots. The first diagram shows the parking lot before Makayla makes the change.



The second diagram shows the parking lot after she makes the change.



The fraction $\frac{2}{1}$ represents the number of wheelchair accessible parking spots now. Which fraction is equivalent to $\frac{2}{1}$?

A. $\frac{1}{2}$ B. $\frac{4}{2}$
C. $\frac{1}{4}$ D. $\frac{2}{4}$

- 6 Mateo spends $\frac{1}{3}$ of every hour working in his garage on Saturday. After 3 hours pass, how long does Mateo work in his garage?

A. 1 hour B. 3 hours
C. 6 hours D. 9 hours

- 7 $10 = ?$

A. $\frac{10}{1}$ B. $\frac{10}{2}$
C. $\frac{2}{10}$ D. $\frac{1}{10}$

Math-E - Lesson 28 – Fractions to a Whole

- 8 Aki has three hours to study for his real estate exam. There are nine sections on the exam. He divides his study time equally among the nine sections. What fraction of time does Aki spend on each section? Use the diagram to help you.

Study Time for Real Estate Exam



- A. $\frac{1}{9}$ hr B. $\frac{1}{4}$ hr
C. $\frac{1}{3}$ hr D. $\frac{1}{2}$ hr
- 9 How many quarter hours are in eight hours?
- A. 32 quarter hours
B. 16 quarter hours
C. 8 quarter hours
D. 4 quarter hours
- 10 Last month, Aponi worked 12 half-hour shifts to cover for people who left work early. How many hours did Aponi work to cover for people who left work early last month?
- A. 1 hour
B. 3 hours
C. 6 hours
D. 12 hours
- 11 Which two fractions are **NOT** equal to 1?
- A. $\frac{1}{1}$
B. $\frac{1}{2}$
C. $\frac{2}{2}$
D. $\frac{5}{5}$
E. $\frac{10}{5}$
F. $\frac{4}{4}$

Use the information to answer question 12.

Pavi orders six pizzas for the office party. Each pizza is cut into eight slices.

12 Part A

A person eats one slice of pizza. What fraction does one slice of one pizza represent?

- A. $\frac{1}{6}$ of one pizza
B. $\frac{1}{2}$ of one pizza
C. $\frac{1}{8}$ of one pizza
D. $\frac{1}{4}$ of one pizza

Part B

How many total slices of pizza does Pavi order?

- A. 6 slices of pizza
B. 8 slices of pizza
C. 24 slices of pizza
D. 48 slices of pizza

13 $\frac{16}{4} = ?$

- A. 2
B. 4
C. 6
D. 8

- 14 Destiny and Teresita are dog walkers. Destiny spends $\frac{8}{2}$ hours walking dogs. Teresita spends 5 hours walking dogs. Which statement is true?
- A. Destiny spends the same amount of time walking dogs as Teresita, 5 hours.
B. Destiny spends 3 hours walking dogs, which is less time than Teresita spends.
C. Destiny spends 4 hours walking dogs, which is less time than Teresita spends.
D. Destiny spends 6 hours walking dogs, which is more time than Teresita spends.

Math-E - Lesson 28 – Fractions to a Whole

Practice 28

Relate Fractions and Whole Numbers

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(3.NF.3.c)

- C.** $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{6}{2} = 3$; Ujarak spends 3 hours learning American Sign Language.
- B.** 1 whole = $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$; There are five fifths in 1 whole.
- Part A: B.** $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{8}{2}$; There are 8 half-hour overtime slots available, so 8 warehouse workers are working overtime.
Part B: A. Each half of the circle represents $\frac{1}{2}$ hour. Each warehouse worker gets $\frac{1}{2}$ hour of overtime.
- D.** One whole is $\frac{1}{1}$, so $8 = \frac{8}{1}$.
- B.** The four halves were combined to make 2 wholes: $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{4}{2} = \frac{2}{1}$.
- A.** $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \frac{3}{3} = 1$; Mateo works in his garage for 1 hour.
- A.** One whole is $\frac{1}{1}$, so $10 = \frac{10}{1}$.
- C.** $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \frac{9}{3} = 3$; Aki spends $\frac{1}{3}$ hour studying for each section of the real estate exam.
- A.** There are 32 quarter hours in 8 hours because there are 4 quarter hours in 1 hour, and $4 \times 8 = 32$.
- C.** There are 12 halves in 6 wholes.
- B, E.** $\frac{1}{1}, \frac{2}{2}, \frac{5}{5}, \frac{4}{4}$ are all the same as 1; $\frac{1}{2}$ and $\frac{10}{5}$ are not equal to 1.
- Part A: C.** $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{8}{8} = 1$;
One slice of pizza is $\frac{1}{8}$ of one pizza.
Part B: D. There are 6 pizzas and each pizza has 8 slices: $6 \times 8 = 48$. Pavi orders 48 slices of pizza.
- B.** 16 fourths equal 4 wholes.
- C.** 8 halves equal 4 wholes, which is less than 5 wholes. Destiny spends less time walking dogs than Teresita.