

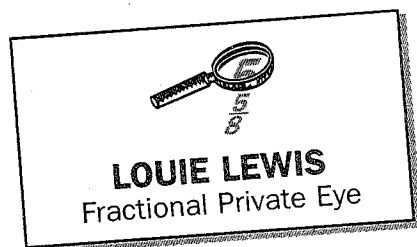
Name \_\_\_\_\_

# Louie Lewis

## Fractional Private Eye

My name is Louis Lewis. I'm a Fractional Detective. I solve fraction cases.

You know the type: fourths, eighths, sixteenths, and so on. That's why they call me Louie Lewis, FPE, Fractional Private Eye. Here's my card:



Being an FPE is tough work, if you can get it. The hours are long. The pay is lousy. And the cases are baffling.

Take this case I had just the other day...

### The Case of the Krispy Krackers

I got a call from Victor Kronskey. He's the millionaire owner of the Kronskey Krispy Krackers Kompany. You know



the ones. They come in all different sizes like: WHOLES, HALVES, and FOURTHS.

Whole  
Kracker



1

Does one  
of these...

$\frac{1}{2}$

Equal 2  
of these?

$\frac{1}{4}$

$\frac{1}{4}$

Kronskey was frantic. His factory had messed up a gigantic cracker order, making thousands of FOURTHS crackers instead of HALF crackers. Unless he did something quick, his whole cracker empire was doomed!

But there was one glimmer of hope. Kronskey's cracker experts had told him that he could substitute two FOURTHS for one HALF. But was it true? Were two FOURTHS really equal to one HALF?

"Blast it, Lewis!" Kronskey roared. "I've got to know the answer to this question, NOW!!"

"Sure thing, Mr. Kronsky," I replied.  
"I'll get right on it."

So I got right on it. But I'm not going to tell you the answer.

**Instead, on another sheet of paper, use diagrams, cutouts, or numbers to prove the following:**

1.  $\frac{1}{2}$  is the same as  $\frac{2}{4}$

2.  $\frac{1}{2}$  is the same as  $\frac{4}{8}$

3. **Explain how you know your answers are true.**

Well, wouldn't you know it. No sooner had I finished that problem when Kronsky came up with a new one. And this was a doozy. He wanted me to find FOUR NEW FRACTIONS that were equal to  $\frac{1}{2}$ .

**Can you think of 4 more fractions that are equal to  $\frac{1}{2}$ ? Write them here.**

4. \_\_\_\_\_ 5. \_\_\_\_\_

6. \_\_\_\_\_ 7. \_\_\_\_\_

Needless to say, I cracked the case.

"Lewis," Kronsky said, "you're a genius. Now think of FOUR DIFFERENT FRACTIONS that are equal to  $\frac{1}{3}$ ."

"What for?" I asked.

"I'm coming out with a new line of crackers that are divided into

THIRDS," Kronsky said.

**Write 4 fractions that are equal to  $\frac{1}{3}$ .**

8. \_\_\_\_\_ 9. \_\_\_\_\_

10. \_\_\_\_\_ 11. \_\_\_\_\_

Kronsky was delighted when I finished. "Remind me to give you a bonus," he said.

"A bonus?" I said. "You haven't even paid me to begin with."

But that didn't matter. Kronsky had more problems for me. He wanted me to think of 2 fractions that were equal to  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{2}{5}$ , and  $\frac{1}{6}$ . Oh well. Another day, another fraction.

**Think of 2 different fractions that are equal to each fraction below. Draw a picture of each fraction if you need to.**

12.  $\frac{2}{3} =$  \_\_\_\_\_

13.  $\frac{3}{4} =$  \_\_\_\_\_

14.  $\frac{2}{5} =$  \_\_\_\_\_

15.  $\frac{1}{6} =$  \_\_\_\_\_

# Why Is Tuesday the Favorite Day of Math Teachers?

For each exercise, write the missing number. Find your answer in the set of boxes under the exercise. Write the letter of the exercise in the box containing the answer.

- (E)  $\frac{2}{3} = \frac{2 \times 5}{3 \times 5} = \frac{15}{15}$  (T)  $\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{3}$  (H)  $\frac{3}{7} = \frac{3 \times 8}{7 \times 8} = \frac{56}{56}$  (Y)  $\frac{5}{8} = \frac{5 \times 4}{8 \times 4} = \frac{20}{20}$
- (A)  $\frac{1}{2} = \frac{1 \times 15}{2 \times 15} = \frac{30}{30}$  (S)  $\frac{3}{5} = \frac{3 \times 6}{5 \times 6} = \frac{18}{18}$  (T)  $\frac{7}{12} = \frac{7 \times 2}{12 \times 2} = \frac{24}{24}$  (O)  $\frac{4}{9} = \frac{4 \times 9}{9 \times 9} = \frac{36}{36}$
- (H)  $\frac{2}{5} = \frac{20}{20}$  (I)  $\frac{3}{4} = \frac{36}{36}$  (A)  $\frac{1}{6} = \frac{18}{18}$  (T)  $\frac{7}{10} = \frac{80}{80}$  (L)  $\frac{5}{12} = \frac{60}{60}$
- (Y)  $\frac{6}{7} = \frac{36}{36}$  (I)  $\frac{4}{15} = \frac{12}{12}$  (T)  $\frac{3}{8} = \frac{30}{30}$  (N)  $\frac{1}{3} = \frac{27}{27}$  (D)  $\frac{3}{20} = \frac{40}{40}$

|    |    |    |    |    |    |    |   |    |    |    |   |    |    |    |   |    |    |   |    |    |   |    |    |
|----|----|----|----|----|----|----|---|----|----|----|---|----|----|----|---|----|----|---|----|----|---|----|----|
| 27 | 12 | 11 | 45 | 30 | 96 | 56 | 8 | 10 | 20 | 81 | 9 | 25 | 32 | 49 | 6 | 15 | 42 | 5 | 80 | 24 | 3 | 14 | 64 |
|----|----|----|----|----|----|----|---|----|----|----|---|----|----|----|---|----|----|---|----|----|---|----|----|

- (A)  $\frac{5}{7} = \frac{21}{21}$  (U)  $\frac{1}{9} = \frac{63}{63}$  (E)  $\frac{5}{6} = \frac{30}{30}$  (A)  $\frac{2}{11} = \frac{18}{18}$  (S)  $\frac{9}{25} = \frac{36}{36}$
- (E)  $\frac{3}{10} = \frac{18}{18}$  (R)  $\frac{7}{16} = \frac{21}{21}$  (A)  $\frac{4}{5} = \frac{10}{10}$  (W)  $\frac{1}{18} = \frac{180}{180}$  (D)  $\frac{7}{20} = \frac{100}{100}$
- (A)  $\frac{7}{8} = \frac{32}{32}$  (E)  $\frac{1}{5} = \frac{55}{55}$  (R)  $\frac{8}{9} = \frac{24}{24}$  (N)  $\frac{2}{15} = \frac{4}{4}$  (T)  $\frac{9}{10} = \frac{36}{36}$
- (B)  $\frac{4}{7} = \frac{40}{40}$  (M)  $\frac{3}{4} = \frac{100}{100}$  (N)  $\frac{3}{16} = \frac{48}{48}$  (F)  $\frac{7}{12} = \frac{144}{144}$  (M)  $\frac{19}{20} = \frac{100}{100}$

|    |    |     |   |    |    |    |    |    |    |    |    |    |    |    |    |   |    |   |   |    |    |    |    |
|----|----|-----|---|----|----|----|----|----|----|----|----|----|----|----|----|---|----|---|---|----|----|----|----|
| 10 | 28 | 100 | 4 | 30 | 15 | 75 | 25 | 35 | 22 | 99 | 84 | 40 | 60 | 27 | 63 | 8 | 39 | 9 | 7 | 95 | 70 | 11 | 48 |
|----|----|-----|---|----|----|----|----|----|----|----|----|----|----|----|----|---|----|---|---|----|----|----|----|

# What Did the Doctor Say to the Guy Who Thought He Was a Wigwam One Day and a Teepee the Next?

Circle one fraction in each set. Notice the letter above it. Write this letter in the box at the bottom of the page that contains the exercise number.

I. Circle the fraction that is equivalent to the first fraction in the set.

1

|               | G             | T              | V              |
|---------------|---------------|----------------|----------------|
| $\frac{1}{3}$ | $\frac{2}{9}$ | $\frac{4}{12}$ | $\frac{5}{18}$ |

2

|               | I              | P               | O               |
|---------------|----------------|-----------------|-----------------|
| $\frac{2}{5}$ | $\frac{6}{12}$ | $\frac{18}{40}$ | $\frac{14}{35}$ |

3

|               | F              | M               | E               |
|---------------|----------------|-----------------|-----------------|
| $\frac{3}{4}$ | $\frac{9}{16}$ | $\frac{21}{32}$ | $\frac{15}{20}$ |

4

|               | A               | W               | L               |
|---------------|-----------------|-----------------|-----------------|
| $\frac{5}{8}$ | $\frac{30}{48}$ | $\frac{20}{24}$ | $\frac{45}{64}$ |

5

|               | K             | S               | C               |
|---------------|---------------|-----------------|-----------------|
| $\frac{4}{9}$ | $\frac{2}{3}$ | $\frac{12}{27}$ | $\frac{28}{72}$ |

6

|               | B             | E               | R               |
|---------------|---------------|-----------------|-----------------|
| $\frac{6}{7}$ | $\frac{7}{8}$ | $\frac{48}{56}$ | $\frac{24}{35}$ |

7

|                | N               | F             | U                |
|----------------|-----------------|---------------|------------------|
| $\frac{7}{10}$ | $\frac{42}{50}$ | $\frac{6}{9}$ | $\frac{70}{100}$ |

8

|                | T               | A               | O               |
|----------------|-----------------|-----------------|-----------------|
| $\frac{5}{12}$ | $\frac{20}{48}$ | $\frac{10}{36}$ | $\frac{30}{84}$ |

9

|               | H              | T               | E               |
|---------------|----------------|-----------------|-----------------|
| $\frac{1}{2}$ | $\frac{7}{15}$ | $\frac{16}{30}$ | $\frac{12}{24}$ |

II. Circle the fraction that is in lowest terms.

10

| V              | I             | U             | M             |
|----------------|---------------|---------------|---------------|
| $\frac{5}{10}$ | $\frac{6}{9}$ | $\frac{3}{8}$ | $\frac{2}{6}$ |

11

| N             | Y             | L               | S               |
|---------------|---------------|-----------------|-----------------|
| $\frac{4}{8}$ | $\frac{2}{9}$ | $\frac{15}{25}$ | $\frac{10}{14}$ |

12

| G             | P             | O              | A               |
|---------------|---------------|----------------|-----------------|
| $\frac{6}{8}$ | $\frac{3}{9}$ | $\frac{7}{12}$ | $\frac{20}{45}$ |

13

| D              | T              | L             | R             |
|----------------|----------------|---------------|---------------|
| $\frac{4}{12}$ | $\frac{9}{15}$ | $\frac{2}{4}$ | $\frac{5}{6}$ |

14

| P               | B              | N              | S              |
|-----------------|----------------|----------------|----------------|
| $\frac{12}{18}$ | $\frac{7}{14}$ | $\frac{9}{12}$ | $\frac{8}{15}$ |

15

| T               | H              | F              | Y               |
|-----------------|----------------|----------------|-----------------|
| $\frac{10}{21}$ | $\frac{4}{32}$ | $\frac{6}{10}$ | $\frac{15}{24}$ |

16

| C              | J              | G               | W              |
|----------------|----------------|-----------------|----------------|
| $\frac{8}{22}$ | $\frac{9}{16}$ | $\frac{10}{35}$ | $\frac{3}{12}$ |

17

| E              | I              | R               | O               |
|----------------|----------------|-----------------|-----------------|
| $\frac{6}{15}$ | $\frac{7}{42}$ | $\frac{11}{33}$ | $\frac{12}{25}$ |

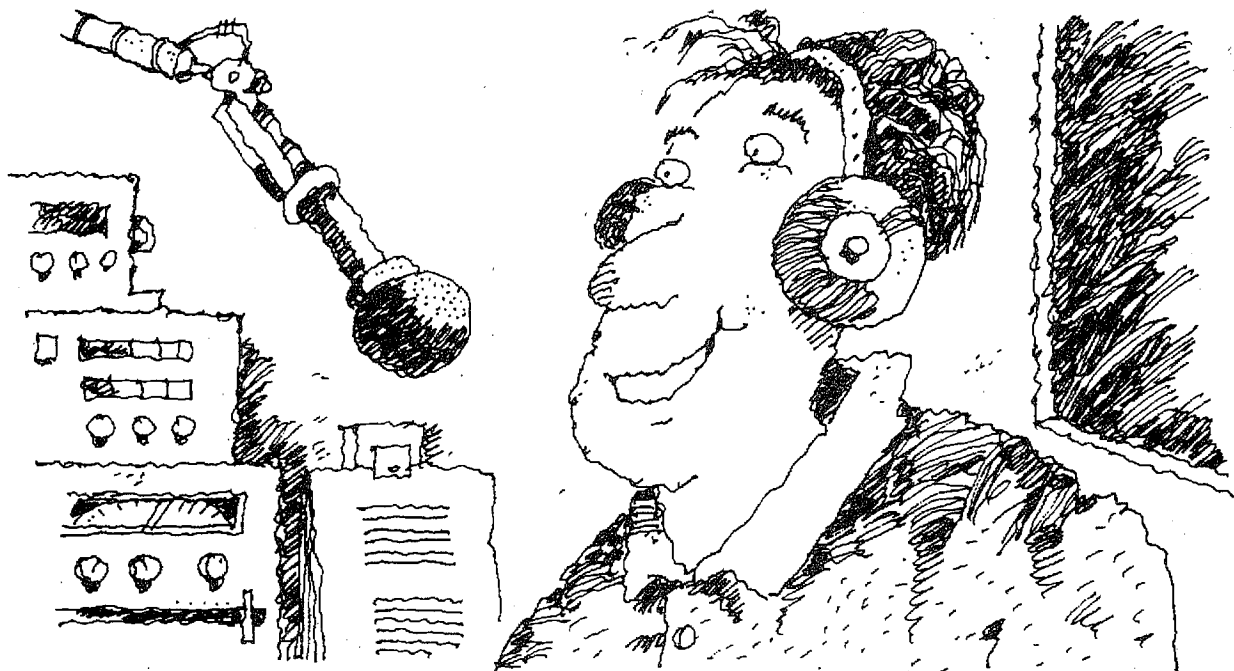
18

| N             | D               | K               | X             |
|---------------|-----------------|-----------------|---------------|
| $\frac{4}{5}$ | $\frac{12}{16}$ | $\frac{15}{36}$ | $\frac{2}{8}$ |

|    |   |   |   |    |   |    |    |    |   |   |    |    |    |   |    |   |   |
|----|---|---|---|----|---|----|----|----|---|---|----|----|----|---|----|---|---|
| 11 | 2 | 7 | 4 | 13 | 6 | 16 | 10 | 14 | 1 | 8 | 17 | 12 | 15 | 3 | 18 | 5 | 9 |
|----|---|---|---|----|---|----|----|----|---|---|----|----|----|---|----|---|---|

Name \_\_\_\_\_

## Joe Trella, Fraction Fella



**JOE:** Welcome back, everyone. You're listening to  $99\frac{1}{2}$  WFRA, the home of Talk Fraction Radio. I'm Joe Trella, the Fraction Fella. OK, let's go to the phones. Betty, you're on Line 2.

**BETTY:** Hi Joe. Love your show. I listen to it *half* the time.

**JOE:** Half the time? Why only half?

**BETTY:** Sorry, Joe. I was just joking, see. "Half" is a fraction. Get it?

**JOE:** I get it, Betty. What's your problem?

**BETTY:** It's my 14-year old daughter, Dora Mae. Whenever I give her a

mixed number, like  $2\frac{2}{3}$ , she turns it into an improper fraction. You know the type. Where the top number is bigger than the bottom. Like  $\frac{8}{3}$ . She thinks it's funny.

**JOE:** Hey, I used to do the same thing when I was a kid.

**BETTY:** You did?

**JOE:** Sure. You know what you ought to do? Use reverse psychology. Give Dora Mae some improper fractions, and make her think you want her to keep 'em that way. I bet she'll turn 'em right into mixed numbers.

**BETTY:** Great idea, Joe. Hey, thanks a lot.

**ONE WAY  
TO DO IT**

### CHANGING IMPROPER FRACTIONS TO MIXED NUMBERS

To write  $\frac{7}{5}$  as a mixed number:

1. Divide the bottom (denominator) into the top (numerator).

$$\begin{array}{r} 1 \text{ R } 2 \\ 5 \overline{) 7} \end{array}$$

2. Write the remainder as a fraction with the same denominator.

$$1 \text{ R } 2 \rightarrow 1\frac{2}{5}$$

**Write these improper fractions as mixed numbers.**

1.  $\frac{3}{2} =$  \_\_\_\_\_

6.  $\frac{16}{5} =$  \_\_\_\_\_

2.  $\frac{5}{3} =$  \_\_\_\_\_

7.  $\frac{25}{8} =$  \_\_\_\_\_

3.  $\frac{7}{4} =$  \_\_\_\_\_

8.  $\frac{35}{6} =$  \_\_\_\_\_

4.  $\frac{9}{2} =$  \_\_\_\_\_

9.  $\frac{57}{10} =$  \_\_\_\_\_

5.  $\frac{14}{5} =$  \_\_\_\_\_

10.  $\frac{91}{15} =$  \_\_\_\_\_

**JOE:** Let's go to Al on Line 4. Hello, Big Al.

**AL:** Hello, Joe. Love your show. So anyway, what's the deal with improper fractions?

**JOE:** What do you mean?

**AL:** When I change an improper fraction to a mixed number—sometimes I find it's not in simplest form. Is this normal?

**JOE:** Relax, big guy. You know what my Uncle Roy used to say to me? If you need to change to sim-

plest form, then go ahead and change to simplest form.

**AL:** Is that all there is to it, Joe?

**JOE:** You bet. Here's what you should do. Try writing these improper fractions as mixed numbers. Then, if they're not in simplest form, change 'em to simplest form. You'll feel much better. I promise ya.

**AL:** Hey, thanks Joe. These improper fractions look great. They really do. I'm gonna try 'em as soon as I hang up.

**Write these improper fractions as mixed numbers. Make sure they're in simplest form.**

11.  $\frac{8}{6} =$  \_\_\_\_\_ 16.  $\frac{13}{7} =$  \_\_\_\_\_

12.  $\frac{12}{8} =$  \_\_\_\_\_ 17.  $\frac{45}{36} =$  \_\_\_\_\_

13.  $\frac{12}{3} =$  \_\_\_\_\_ 18.  $\frac{60}{48} =$  \_\_\_\_\_

14.  $\frac{21}{9} =$  \_\_\_\_\_ 19.  $\frac{100}{24} =$  \_\_\_\_\_

15.  $\frac{30}{12} =$  \_\_\_\_\_ 20.  $\frac{88}{16} =$  \_\_\_\_\_

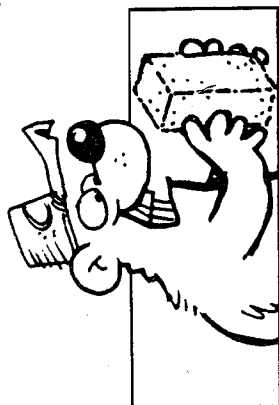
**JOE:** Let's go to Pauline on Line 5.

**PAULINE:** Hi, Joe. It's my little brother, Danny. He's 10. Every time he sees an improper fraction, it's like he NEEDS to turn it into a mixed number.

**JOE:** Relax, Pauline. I think I know someone your little brother would like to meet. Her name is Dora Mae.

**PAULINE:** Oh, wow, Joe. That's sounds great.

Name: \_\_\_\_\_



# What Is the Difference Between a 16-Ounce Brick and a Carpenter?

Do each exercise and find your answer in the set of boxes under it.  
Write the letter of the exercise in the box containing the answer.

I. Write each improper fraction either as a mixed number with the fraction in lowest terms or as a whole number.

- |                     |                     |                     |                     |                       |
|---------------------|---------------------|---------------------|---------------------|-----------------------|
| (S) $\frac{9}{4}$   | (E) $\frac{15}{8}$  | (O) $\frac{31}{6}$  | (D) $\frac{6}{4}$   | (N) $\frac{12}{9}$    |
| (G) $\frac{14}{8}$  | (A) $\frac{48}{10}$ | (N) $\frac{20}{12}$ | (O) $\frac{28}{7}$  | (I) $\frac{27}{3}$    |
| (U) $\frac{40}{11}$ | (W) $\frac{73}{10}$ | (N) $\frac{26}{16}$ | (H) $\frac{45}{15}$ | (P) $\frac{100}{100}$ |

$$\frac{9}{4} = 2\frac{1}{4} = 2\frac{2}{8}$$

|   |                |                |                |                |                |   |                |   |                |                |                |                 |   |                |                 |                |                |                |                |                |                |
|---|----------------|----------------|----------------|----------------|----------------|---|----------------|---|----------------|----------------|----------------|-----------------|---|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 4 | $1\frac{1}{3}$ | $1\frac{5}{6}$ | $\frac{4}{11}$ | $\frac{3}{11}$ | $1\frac{7}{8}$ | 9 | $1\frac{3}{4}$ | 3 | $2\frac{1}{4}$ | $1\frac{1}{8}$ | $4\frac{4}{5}$ | $7\frac{9}{10}$ | 1 | $5\frac{1}{6}$ | $3\frac{7}{11}$ | $1\frac{5}{8}$ | $1\frac{1}{2}$ | $4\frac{1}{5}$ | $3\frac{3}{5}$ | $1\frac{2}{3}$ | $2\frac{2}{3}$ |
|   |                |                |                |                |                |   |                |   |                |                |                |                 |   |                |                 |                |                |                |                |                |                |

II. Write each mixed number as an improper fraction.

- |                      |                    |                     |                    |                     |                      |
|----------------------|--------------------|---------------------|--------------------|---------------------|----------------------|
| (H) $2\frac{2}{3}$   | (A) $4\frac{1}{2}$ | (T) $1\frac{7}{10}$ | (O) $3\frac{1}{7}$ | (E) $7\frac{2}{5}$  | (S) $4\frac{5}{6}$   |
| (T) $2\frac{3}{8}$   | (D) $5\frac{5}{9}$ | (E) $1\frac{7}{12}$ | (H) $3\frac{1}{4}$ | (Y) $4\frac{3}{16}$ | (R) $10\frac{8}{15}$ |
| (U) $2\frac{11}{24}$ | (O) $1\frac{5}{7}$ | (P) $9\frac{3}{4}$  | (A) $4\frac{3}{5}$ | (N) $33\frac{1}{3}$ | (W) $17\frac{1}{2}$  |

|                |                 |                |                |                 |                |                |               |                 |                  |                 |                |                |                 |                 |                |                |                |               |                |                |                 |
|----------------|-----------------|----------------|----------------|-----------------|----------------|----------------|---------------|-----------------|------------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|---------------|----------------|----------------|-----------------|
| $\frac{44}{9}$ | $\frac{17}{10}$ | $\frac{13}{4}$ | $\frac{37}{5}$ | $\frac{54}{24}$ | $\frac{12}{7}$ | $\frac{19}{8}$ | $\frac{8}{3}$ | $\frac{19}{12}$ | $\frac{158}{15}$ | $\frac{79}{16}$ | $\frac{39}{4}$ | $\frac{22}{7}$ | $\frac{59}{24}$ | $\frac{100}{3}$ | $\frac{50}{9}$ | $\frac{29}{6}$ | $\frac{35}{4}$ | $\frac{9}{2}$ | $\frac{35}{2}$ | $\frac{23}{5}$ | $\frac{67}{16}$ |
|                |                 |                |                |                 |                |                |               |                 |                  |                 |                |                |                 |                 |                |                |                |               |                |                |                 |

# What Did George Washington Say To His Men On March 3?

Write each fraction in lowest terms. Find your answer in the adjacent answer columns. Write the letter of the exercise in the box containing the number of the answer.



10 (W)  $\frac{3 \div 3}{9 \div 3} = \frac{1}{3}$

(O)  $\frac{2}{8}$

(L)  $\frac{5}{10}$

(T)  $\frac{4}{6}$

(H)  $\frac{9}{12}$

(R)  $\frac{10}{25}$

Answers:

(12)  $\frac{3}{5}$  (25)  $\frac{1}{4}$

(5)  $\frac{2}{5}$  (1)  $\frac{2}{3}$

(10)  $\frac{1}{3}$  (19)  $\frac{5}{6}$

(22)  $\frac{3}{4}$  (16)  $\frac{1}{2}$

(I)  $\frac{3}{24}$

(T)  $\frac{8}{18}$

(O)  $\frac{9}{15}$

(R)  $\frac{7}{21}$

(W)  $\frac{10}{12}$

(L)  $\frac{4}{8}$

Answers:

(4)  $\frac{3}{5}$  (17)  $\frac{3}{4}$

(2)  $\frac{2}{3}$  (15)  $\frac{1}{2}$

(20)  $\frac{1}{3}$  (27)  $\frac{4}{9}$

(14)  $\frac{1}{8}$  (8)  $\frac{5}{6}$

(R)  $\frac{10}{16}$

(H)  $\frac{15}{20}$

(E)  $\frac{3}{30}$

(O)  $\frac{12}{14}$

(M)  $\frac{16}{20}$

(W)  $\frac{6}{36}$

Answers:

(11)  $\frac{1}{10}$  (6)  $\frac{5}{8}$

(9)  $\frac{3}{8}$  (18)  $\frac{4}{5}$

(13)  $\frac{1}{6}$  (28)  $\frac{3}{4}$

(2)  $\frac{6}{7}$  (12)  $\frac{2}{5}$

(O)  $\frac{20}{30}$

21 (C)  $\frac{8 \div 2}{16 \div 2} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$

(F)  $\frac{10}{45}$

(M)  $\frac{14}{20}$

(A)  $\frac{15}{36}$

(R)  $\frac{21}{56}$

Answers:

(19)  $\frac{5}{12}$  (24)  $\frac{2}{9}$

(7)  $\frac{2}{3}$  (23)  $\frac{3}{5}$

(26)  $\frac{3}{8}$  (3)  $\frac{7}{10}$

(17)  $\frac{2}{7}$  (21)  $\frac{1}{2}$

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|   |   |   |   |   |   |   |   |   | W  |    |    |    |    |    |    |    |    |    |    | C  |    |    |    |    |    |    |    |



# What Did George Washington Say To His Men On March 3?

Write each fraction in lowest terms. Find your answer in the adjacent answer columns. Write the letter of the exercise in the box containing the number of the answer.



10. (W)  $\frac{3 \div 3}{9 \div 3} = \frac{1}{3}$

(O)  $\frac{2}{8}$

(L)  $\frac{5}{10}$

(T)  $\frac{4}{6}$

(H)  $\frac{9}{12}$

(R)  $\frac{10}{25}$

Answers:

(12)  $\frac{3}{5}$  (25)  $\frac{1}{4}$

(5)  $\frac{2}{5}$  (1)  $\frac{2}{3}$

(10)  $\frac{1}{3}$  (19)  $\frac{5}{6}$

(22)  $\frac{3}{4}$  (16)  $\frac{1}{2}$

(I)  $\frac{3}{24}$

(T)  $\frac{8}{18}$

(O)  $\frac{9}{15}$

(R)  $\frac{7}{21}$

(W)  $\frac{10}{12}$

(L)  $\frac{4}{8}$

Answers:

(4)  $\frac{3}{5}$  (17)  $\frac{3}{4}$

(2)  $\frac{2}{3}$  (15)  $\frac{1}{2}$

(20)  $\frac{1}{3}$  (27)  $\frac{4}{9}$

(14)  $\frac{1}{8}$  (8)  $\frac{5}{6}$

(R)  $\frac{10}{16}$

(H)  $\frac{15}{20}$

(E)  $\frac{3}{30}$

(O)  $\frac{12}{14}$

(M)  $\frac{16}{20}$

(W)  $\frac{6}{36}$

Answers:

(11)  $\frac{1}{10}$  (6)  $\frac{5}{8}$

(9)  $\frac{3}{8}$  (18)  $\frac{4}{5}$

(13)  $\frac{1}{6}$  (28)  $\frac{3}{4}$

(2)  $\frac{6}{7}$  (12)  $\frac{2}{5}$

(O)  $\frac{20}{30}$

21. (C)  $\frac{8 \div 4}{16 \div 4} = \frac{2}{4} = \frac{1}{2}$

(F)  $\frac{10}{45}$

(M)  $\frac{14}{20}$

(A)  $\frac{15}{36}$

(R)  $\frac{21}{56}$

Answers:

(19)  $\frac{5}{12}$  (24)  $\frac{2}{9}$

(7)  $\frac{2}{3}$  (23)  $\frac{3}{5}$

(26)  $\frac{3}{8}$  (3)  $\frac{7}{10}$

(17)  $\frac{2}{7}$  (22)  $\frac{1}{2}$

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|   |   |   |   |   |   |   |   |   | W  |    |    |    |    |    |    |    |    |    |    | C  |    |    |    |    |    |    |    |

# Where can you hear MUSIC on an ocean liner?

Write each fraction in lowest terms. Find your answer at the right and mark the letter next to it. For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the bottom of the page.

|   |  |   |  |                              |                              |   |                              |
|---|--|---|--|------------------------------|------------------------------|---|------------------------------|
| 1   | $\frac{6 \div 3}{9 \div 3} = \frac{2}{3}$ <sup>B</sup> | $\frac{2 \div 2}{10 \div 2} = \frac{1}{5}$ <sup>L</sup> | $\frac{20 \div 5}{35 \div 5} = \frac{4}{7}$ <sup>V</sup> | <del>(A)</del> $\frac{1}{5}$ | <del>(B)</del> $\frac{2}{3}$ | <u>(E)</u> $\frac{2}{7}$ <sup>EXTRA</sup> | <del>(F)</del> $\frac{4}{7}$ |
| 2   | $\frac{12}{16} =$                                      | $\frac{15}{18} =$                                       | $\frac{20}{90} =$  | (C) $\frac{4}{5}$            | (H) $\frac{3}{4}$            | (F) $\frac{2}{9}$                         | (O) $\frac{5}{6}$            |
| 3   | $\frac{25}{75} =$                                      | $\frac{12}{32} =$                                       | $\frac{42}{49} =$  | (G) $\frac{6}{7}$            | (D) $\frac{3}{8}$            | (A) $\frac{3}{7}$                         | (R) $\frac{1}{3}$            |
| 4   | $\frac{10}{24} =$                                      | $\frac{15}{27} =$                                       | $\frac{50}{100} =$                                       | (I) $\frac{1}{2}$            | (M) $\frac{5}{12}$           | (G) $\frac{5}{9}$                         | (E) $\frac{5}{8}$            |
| 5   | $\frac{5}{40} =$                                       | $\frac{8}{30} =$  | $\frac{24}{36} =$  | (R) $\frac{1}{8}$            | (T) $\frac{4}{9}$            | (N) $\frac{4}{15}$                        | (L) $\frac{2}{3}$            |
| 6   | $\frac{12}{30} =$                                      | $\frac{21}{36} =$                                       | $\frac{60}{80} =$  | (D) $\frac{7}{20}$           | (C) $\frac{7}{12}$           | (F) $\frac{2}{5}$                         | (E) $\frac{3}{4}$            |
| 7   | $\frac{70}{100} =$                                     | $\frac{250}{1,000} =$                                   | $\frac{16}{24} =$  | (W) $\frac{7}{10}$           | (U) $\frac{2}{3}$            | (R) $\frac{1}{4}$                         | (H) $\frac{7}{8}$            |
| 8   | $\frac{8}{28} =$                                       | $\frac{10}{60} =$                                       | $\frac{45}{100} =$                                       | (E) $\frac{1}{6}$            | (K) $\frac{2}{5}$            | (S) $\frac{9}{20}$                        | (H) $\frac{2}{7}$            |
| 9   | $\frac{75}{100} =$                                     | $\frac{8}{36} =$  | $\frac{21}{24} =$  | (D) $\frac{7}{8}$            | (T) $\frac{7}{12}$           | (L) $\frac{3}{4}$                         | (N) $\frac{2}{9}$            |
| 10  | $\frac{18}{36} =$                                      | $\frac{55}{75} =$                                       | $\frac{120}{150} =$                                      | (A) $\frac{4}{5}$            | (R) $\frac{11}{15}$          | (E) $\frac{2}{3}$                         | (S) $\frac{1}{2}$            |
| 11  | 40 minutes is what fraction of an hour?                |   |  |                              |                              | (M) $\frac{1}{4}$                         | (P) $\frac{3}{5}$            |
|   | 3 inches is what fraction of a foot?                   |   |  |                              |                              | (D) $\frac{2}{3}$                         | (G) $\frac{5}{8}$            |
|   | 10 ounces is what fraction of a pound?                 |   |  |                              |                              |   |                              |
| <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px;"> <span>5</span> <span>7</span> <span><u>1</u><br/>E</span> <span>9</span> <span>3</span> <span>11</span> <span>4</span> <span>6</span> <span>10</span> <span>2</span> <span>8</span> </div> |  |   |  |                              |                              |   |                              |

## Fraction Quiz

Name: \_\_\_\_\_ Block: \_\_\_\_\_

\*\*\*Reduce each fraction to **lowest terms**. Show what you divided by to reduce the fraction. Circle your final answer.

①  $\frac{6}{9} =$

②  $\frac{18}{24} =$

③  $\frac{14}{28} =$

④  $\frac{12}{48} =$

\*\*\*Change each improper fraction to a mixed number in **lowest terms**. Show all work. Circle your final answer.

⑤  $\frac{31}{5} =$

⑥  $\frac{12}{8} =$

⑦  $\frac{47}{11} =$

⑧  $\frac{15}{4} =$

\*\*\*Change each mixed number to an improper fraction. Show all work. Circle your final answer.

⑨  $5\frac{9}{10} =$

⑩  $6\frac{2}{3} =$

⑪  $12\frac{5}{6} =$

⑫  $2\frac{1}{4} =$

\*\*\*Find an equivalent fraction for each fraction given.

⑬  $\frac{7}{8} = \frac{\boxed{\phantom{000}}}{56}$

⑭  $\frac{3}{4} = \frac{24}{\boxed{\phantom{000}}}$

⑮  $\frac{2}{5} = \frac{\boxed{\phantom{000}}}{60}$

⑯  $\frac{6}{16} = \frac{3}{\boxed{\phantom{000}}}$