

LESSON
4

Number Theory and Fractions

Practice A: Decimals and Fractions

Write each decimal as a fraction or mixed number.

1. 0.5

2. 0.25

3. 0.75

4. 0.4

5. 0.8

6. 1.2

Write each fraction or mixed number as a decimal.

7. $\frac{3}{10}$

8. $\frac{1}{2}$

9. $\frac{1}{4}$

10. $1\frac{3}{4}$

11. $\frac{3}{5}$

12. $1\frac{2}{5}$

Circle the letter of the best answer.

13. Which of the following sets is written in order from least to greatest?

A 0.5, $\frac{1}{4}$, 0.75

C $\frac{1}{4}$, 0.5, 0.75

B 0.4, $\frac{7}{10}$, 0.6

D $\frac{7}{10}$, 0.4, 0.6

14. Which of the following sets is written in order from greatest to least?

F $\frac{1}{3}$, $1\frac{1}{2}$, $1\frac{3}{4}$

H $1\frac{1}{2}$, $1\frac{3}{4}$, $1\frac{1}{3}$

G $\frac{2}{5}$, $0.\bar{3}$, 0.3

J 0.3, $0.\bar{3}$, $\frac{2}{5}$

15. At Franklin Elementary School, $\frac{2}{3}$ of all the students attended the chorus recital on Thursday. On Friday, $\frac{3}{4}$ of all the students attended the basketball game. Which event had the highest attendance?

16. Each of the Girl Scout troops was given the same number of cookies to sell. Tina's troop sold 0.25 of its cookies. Chantall's Girl Scout troop sold half of its cookies. Which troop sold the most cookies?

2. Step 1: $2 \cdot 7 \cdot y + 5 \cdot 7$
 Step 2: The GCF is 7.
 Step 3: $7 \cdot 2y + 7 \cdot 5$
 Step 4: $7(2y + 5)$
 Step 5: $7(2y + 5) = 14y + 35$
3. Step 1: $2 \cdot 2 \cdot 2 \cdot 2 + 2 \cdot 11$
 Step 2: The GCF is 2.
 Step 3: $2 \cdot 8 + 2 \cdot 11$
 Step 4: $2(8 + 11)$
 Step 5: $16 + 22 = 38$;
 $2(8 + 11) = 2(19) = 38$
4. Step 1: $2 \cdot 5 \cdot x + 5 \cdot 5 \cdot x$
 Step 2: The GCF is $5x$.
 Step 3: $5x \cdot 2 + 5x \cdot 5$
 Step 4: $5x(2 + 5)$
 Step 5: $10x + 25x = 35x$;
 $5x(2 + 5) = 5x(7) = 35x$

Puzzles, Twisters & Teasers

1. Shaded cells show path.

Start 225	200 + 25	25 + 2(10)	15 • 15 • 5
100 + 5 ²	15 ²	2(100) + 5 ²	5 ² • 3 ²
40 • 5 + 5	2(5) ³	5 • 5 • 3	5 ³ + 10 ²
205 + 10	5 ³ + 10	100(2) + 5	Target 200 + 25

2. Shaded cells show path.

Start $2x + 12x$	$2(x + 12)$	$15x$	$10x$
$x(2 + 12)$	$14(x)$	$7 + 2x$	$12(x + 2)$
$2x + 7$	$2x(1 + 6)$	$x(2 + 10)$	$12(x - 2)$
$2x(1 + 7)$	$2x(7)$	$2(x + 6x)$	Target $14x$

Answers for Lesson 4

Practice A

- $\frac{5}{10}$ or $\frac{1}{2}$
- $\frac{25}{100}$ or $\frac{1}{4}$
- $\frac{75}{100}$ or $\frac{3}{4}$
- $\frac{4}{10}$ or $\frac{2}{5}$
- $\frac{8}{10}$ or $\frac{4}{5}$
- $1\frac{2}{10}$ or $1\frac{1}{5}$
- 0.3
- 0.5
- 0.25
- 1.75
- 0.6
- 1.4
- C
- G
- the basketball game
- Chantall's troop

Practice B

- $\frac{23}{100}$
- $\frac{1}{10}$
- $3\frac{25}{100}$ or $3\frac{1}{4}$
- $1\frac{1}{3}$
- $5\frac{5}{10}$ or $5\frac{1}{2}$
- $3\frac{7}{10}$
- 0.8
- $0.\bar{1}$
- $1.\bar{6}$
- 3.6
- $2.\bar{3}$
- $0.\bar{8}$
- $\frac{1}{4}, \frac{3}{5}, 0.7$
- $\frac{1}{8}, 0.25, 0.3$
- 0.49, $\frac{1}{2}, \frac{9}{10}$
- 0.9, 0.13, $\frac{1}{10}$
- 0.7, $\frac{2}{3}, \frac{2}{5}$
- $\frac{4}{5}, \frac{3}{4}, 0.65$
- Kelly has the most, and Jane has the least.
- May, June, April

Practice C

- $\frac{97}{100}$
- $2\frac{3}{100}$
- $56\frac{1}{10}$
- $6\frac{2}{3}$
- $7\frac{53}{100}$
- $12\frac{9}{1,000}$