

Teacher Notes:

- Introduce Hint #50 “Reducing Fractions (Manipulatives and Shortcuts).”
- Review “Tests for Divisibility” on page 20 and “Fraction Families Equivalent Fractions” on page 18 in the *Student Reference Guide*.

• Reducing Fractions, Part 1

New Concept

- To find **equivalent** fractions, **multiply** by a fraction name for 1.

$$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$$

- To **reduce** fractions, **divide** by a fraction name for 1.

$$\frac{3}{6} \div \frac{3}{3} = \frac{1}{2} \quad \begin{array}{l} (3 \div 3 = 1) \\ (6 \div 3 = 2) \end{array}$$

- If both terms cannot be divided by the **same** number, the fraction **cannot** be reduced.

$$\frac{2}{5} \text{ cannot be reduced.}$$

Lesson Practice

- a. Reduce $\frac{8}{12}$ by dividing $\frac{8}{12}$ by $\frac{4}{4}$.

$$\frac{8}{12} \div \frac{4}{4} = \frac{8 \div 4}{12 \div 4} = \text{---}$$

- b. Which of these fractions **cannot** be reduced? (Circle one.)

A $\frac{2}{8}$

B $\frac{3}{8}$

C $\frac{4}{8}$

D $\frac{6}{8}$

Lesson Practice, continued

Add, subtract, or multiply as indicated. Remember to reduce the answers.

c. $\frac{3}{8} - \frac{1}{8} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$

d. $\frac{3}{10} + \frac{3}{10} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$

e. $\frac{2}{3} \times \frac{1}{2} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$

f. $\frac{\quad}{30} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Rewrite each mixed number with a reduced fraction. (Keep the whole number. Reduce the fraction.)

g. $1 \frac{3}{9}$ _____

h. $2 \frac{6}{9}$ _____

i. $2 \frac{5}{10}$ _____

Find each sum or difference. Remember to reduce the answers.

j. $1 \frac{1}{4} + 2 \frac{1}{4} =$ _____

k. $1 \frac{1}{8} + 5 \frac{5}{8} =$ _____

l. $5 \frac{5}{12} - 1 \frac{1}{12} =$ _____

Written Practice

 page 530

1. _____ highest

_____ lowest

more

2. average

3. 1 ft = _____ in.

(_____ \times _____) + _____ = _____

4. _____

5. $\frac{2}{3} \times \frac{1}{1} = \frac{\quad}{12}$

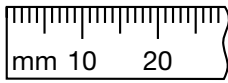
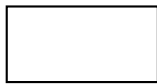
$\frac{1}{4} \times \frac{1}{1} = \frac{\quad}{12}$

6. prime numbers

7. $\frac{10}{12} \div \frac{2}{2} =$

Use work area.

8. $\frac{1}{2}$ of length = width



9. a. $\frac{1}{4}$ of 24

b. $\frac{1}{2}$ of answer to a.

c. $\frac{3}{24} =$

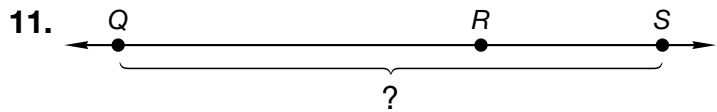
$\frac{1}{4}$ {	24 members
	__ members
	__ members
	__ members

a. _____

b. _____

c. _____

10. rectangle in problem 8
Area = length \times width



12. 3.4
 $+$ _____

13. 6.25
 $-$ _____

14. Draw 3^2 .

Use work area.

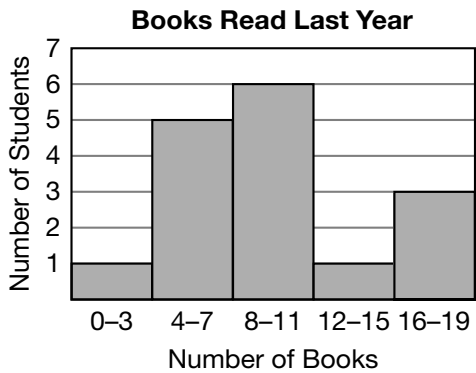
25. number cube rolled once

a. probability of an even number = _____

b. different event with same probability: Probability of an _____ number.

Use work area.

26.



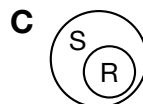
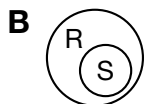
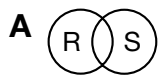
a. How many students read 12 books or more?

b. How many students read 15 books or fewer?

a. _____ b. _____

27. All **S** _____ are **r** _____, but some **r** _____

are not **S** _____.



28. fraction: 15% = _____

Reduce: $\frac{1}{5} \div \frac{5}{5} = \frac{1}{5}$

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29. $\frac{1}{2} \times \frac{1}{2}$ $\frac{1}{2}$
 ↓ ↓
 _____ ○ _____

Use work area.

30. See  page 533.

283 →
 261 →
 →
 →

I used **C** _____ numbers that were multiples of 25.

_____ + _____ + _____ + _____ = _____

Use work area.