

Teacher Notes:

- Introduce Hint #51 “Finding the Greatest Common Factor.”
- Review “Factors” on page 8 in the *Student Reference Guide*.
- For additional practice, students may complete Targeted Practice 82.

• Greatest Common Factor (GCF)

New Concept

- To find the greatest common factor (GCF):
 1. **List** the factors of the **smaller** number in order.
 2. Starting with the largest factor, **cross out** any factor that does **not** divide evenly into the **larger** number.
 3. Circle the first number that divides evenly into the larger number. This is the **GCF**.

Example

Find the greatest common factor (GCF) of 8 and 20.

1. List the factors of 8. 1, 2, 4, 8
2. Eight does not divide evenly into 20.
Cross 8 out. 1, 2, 4, ~~8~~
3. Four divides evenly into 20.
Circle 4 and stop. 1, 2, **4**, ~~8~~

Four is the greatest common factor of 8 and 20.

Lesson Practice

Find the greatest common factor (GCF) of each pair of numbers:

a. 6 and 9 _____

factors of 6: 1, 2, 3, 6

b. 6 and 12 _____

factors of 6: _____, _____, _____, _____

Lesson Practice, continued

c. 15 and 10 _____

factors of 15: _____, _____, _____, _____

d. 6 and 10 _____

factors of 6: _____, _____, _____, _____

e. 12 and 15 _____

_____, _____, _____, _____, _____, _____

f. 7 and 10 _____

_____, _____

Reduce each fraction by dividing the terms of the fraction by their GCF.
(See problems **a**, **b**, and **c**.)

g. $\frac{6}{9} \div \frac{1}{1} = \underline{\hspace{2cm}}$

h. $\frac{6}{12} \div \frac{1}{1} = \underline{\hspace{2cm}}$

i. $\frac{15}{100} \div \frac{1}{1} = \underline{\hspace{2cm}}$

Written Practice

 page 536

1. 8 a.m. to 2 p.m. = _____ hours

hours
dollars $\frac{34.50}{1} = ?$

I used C _____ numbers to check my answer. \$34.50 is close

to _____.

_____ $\div 6 =$ _____ which is close to _____.



2. Estimate the product.

396 →

507 → _____

3. ..., 3452, 3552, 3652, _____, ...

4. The height of most cars is about:

A 4 to 5 feet B 8 to 10 feet

C 40 to 50 feet D 20 to 25 feet

Measure yourself compared to a car.

5. _____

6. octagon → _____ sides

each side = 12 in.

perimeter = _____ in.

7. not prime

A 11

B 21

C 31

D 41

8. a. List the factors of the **smaller** number (20):

_____, _____, _____, _____, _____, _____

Cross out those that are **not** factors of the **larger** number (30).

The biggest factor is the GCF. Circle it.

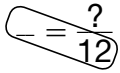
b. Divide both by the GCF.

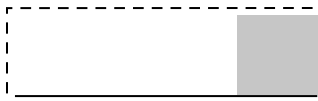
$$\frac{20}{30} \div \frac{1}{1} =$$

a. _____

b. _____

9. $\frac{3}{4}$ of a foot

is  of



10. See  page 537.

blue to gray

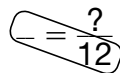
A translation B rotation

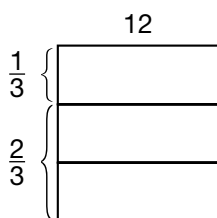
C reflection D flip



11. a. $\frac{1}{3}$ of 12

b. $\frac{2}{3}$ of 12

is  of



a. _____

b. _____

12. Reduce:

$$\frac{6}{12} =$$

Divide **both** by the GCF.



13. 2^3 3^2

↓ ↓

_____ ○ _____

Use work area.

14. $\frac{5}{7} + \frac{3}{7} =$

Convert.



15. $\frac{4}{4} - \frac{2}{2} =$

Convert.



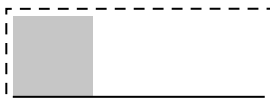
16. $\frac{2}{3} \times \frac{1}{1} = \frac{6}{9}$



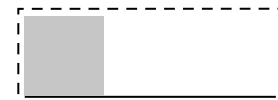
17.
$$\begin{array}{r} 976.5 \\ 470.4 \\ 436.7 \\ + 98.6 \\ \hline \end{array}$$



18.
$$\begin{array}{r} \$40.00 \\ - \$32.85 \\ \hline \end{array}$$



19.
$$\begin{array}{r} \$8.47 \\ \times 70 \\ \hline \end{array}$$



20.
$$\begin{array}{r} R \\ 6 \overline{) 43,715} \end{array}$$

21. $\frac{2640}{30} =$

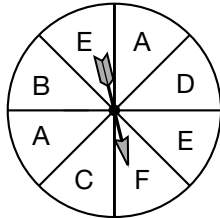
22.
$$\begin{array}{r} 367 \\ \times 418 \\ \hline \end{array}$$

23. $3\frac{1}{4} + 3\frac{1}{4} =$

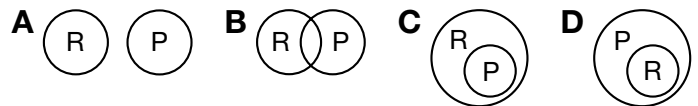
Simplify.

24. $\$18.64 \div 4 =$

25. Find the probability that with one spin the spinner will **not** stop on A. Write the answer as a **reduced** fraction.



26. All **r** _____ are **p** _____, but some **p** _____ are not **r** _____.



27. fraction: $22\% =$ _____

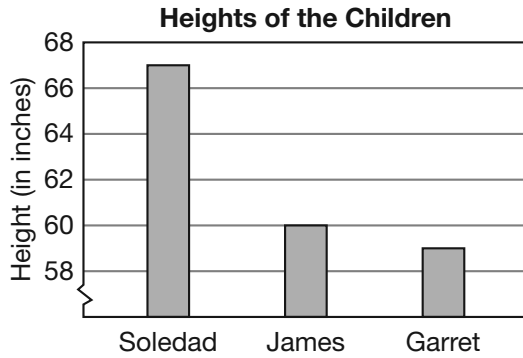
Reduce: _____ \div $\frac{1}{1}$ = _____

28. a. Soledad

_____ Garret

needs

b. ft $\frac{1}{\text{in.}} = \frac{5}{?}$



Which child is exactly 5 feet tall? _____

c. average _____ d. range _____ e. median _____

Use work area.

29. Mt. Blackburn → _____

Mt. McKinley (Mt. Blackburn + 1198) → _____

Mt. Foraker (Mt. McKinley - 890) → _____

Use work area.

30. 1976 → I used C numbers.

1957 → _____ - _____ = _____

Use work area.