

Name _____

Date _____

1. Solve.

a. 8 feet = 96 inches

b. 4 yards 2 feet = 14 feet

c. 14 pounds 7 ounces = 231 ounces

2. Answer *true* or *false* for the following statements. If the statement is false, change the right side of the comparison to make it true.

a. 3 pounds > 60 ounces false 3 pounds > 40 ounces

b. 12 yards < 40 feet true

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1. Complete the table.

Quarts	Cups
1	4
2	8
4	16

2. Bonnie's doctor recommended that she drink 2 cups of milk per day. If she buys 3 quarts of milk, will it be enough milk to last 1 week? Explain how you know.

3 qts.

1 unit = 4c
3 units = 12 cups

1 week

$7 \times 2 \text{ cups} = 14 \text{ cups}$

$14c - 12c = 2 \text{ cups}$

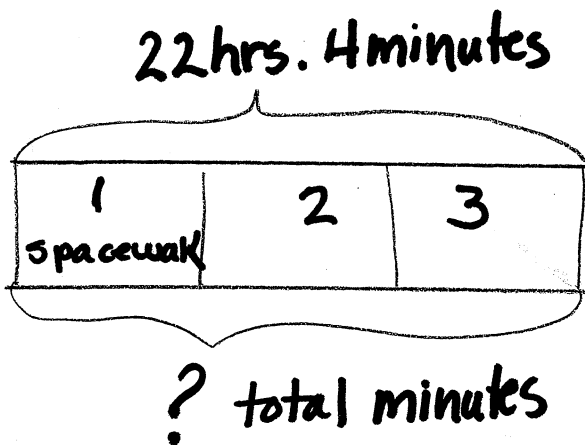
No, Bonnie will not have enough milk to last 1 week. Bonnie needs 14 cups for the week. 3 qts. is equal to 12 cups so she will be short 2 cups.

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The astronauts from Apollo 17 completed 3 spacewalks while on the moon for a total duration of 22 hours 4 minutes. How many minutes did the astronauts walk in space?

$$1 \text{ hour} = 60 \text{ minutes}$$



$$\begin{array}{r} 22 \\ \times 60 \\ \hline 00 \\ + 1320 \text{ min.} \\ \hline 1320 \end{array}$$

$$\begin{array}{r} 1320 \\ + 4 \\ \hline 1324 \end{array}$$

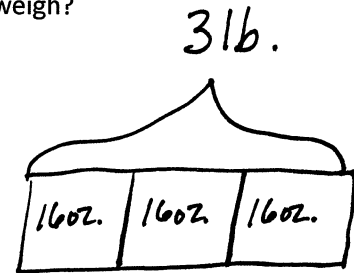
The total minutes was 1,324 minutes for the 3 spacewalks.

Name _____

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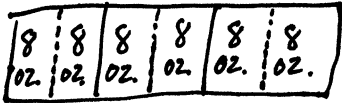
Use RDW to solve the following problem.

Brian has a melon that weighs 3 pounds. He cut it into six equal pieces. How many ounces did each piece weigh?



$$1 \text{ lb.} = 16 \text{ oz.}$$

Each piece weighs 8 oz.



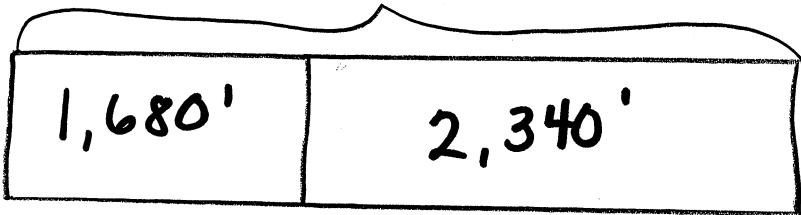
Name _____

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Caitlin ran 1,680 feet on Monday and 2,340 feet on Tuesday. How many yards did she run in those two days?

? total yards

1 yard = 3 ft.



$$\begin{array}{r} 1,680 \\ + 2,340 \\ \hline 4,020 \end{array}$$

Caitlin ran 1,340 yards
in two days.

$$\begin{array}{r} 1340 \text{ yds.} \\ 3 \overline{)4020} \\ \underline{-3} \\ 10 \\ \underline{-9} \\ 12 \\ \underline{-12} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

Name _____

Date _____

1. Find the following sums and differences. Show your work.

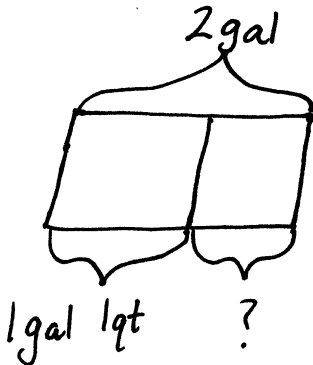
a. $7 \text{ gal } 2 \text{ qt} + 3 \text{ gal } 3 \text{ qt} = \underline{11} \text{ gal } \underline{1} \text{ qt}$

$$\begin{array}{r} 10 \text{ gal} + 5 \text{ qt} = 11 \text{ gal } 1 \text{ qt} \\ \quad \quad \quad \uparrow \\ \quad \quad \quad 1 \text{ gal } 1 \text{ qt} \end{array}$$

b. $9 \text{ gal } 1 \text{ qt} - 5 \text{ gal } 3 \text{ qt} = \underline{3} \text{ gal } \underline{2} \text{ qt}$

$$\begin{array}{r} 4 \text{ gal } 1 \text{ qt} - 3 \text{ qt} = 3 \text{ gal } 2 \text{ qt} \\ \quad \quad \quad \uparrow \\ \quad \quad \quad 3 \text{ gal } 4 \text{ qt} \end{array}$$

2. Jason poured 1 gallon 1 quart of water into an empty 2-gallon bucket. How much more water can be added to reach the bucket's 2-gallon capacity?



$$2 \text{ gal} - 1 \text{ gal } 1 \text{ qt}$$

$$1 \text{ gal} - 1 \text{ qt} = 3 \text{ qt}$$

$$\downarrow \\ 4 \text{ qt}$$

3 qt can be added to the bucket to reach its 2-gallon capacity.

Name _____

Date _____

Determine the following sums and differences. Show your work.

1. $4 \text{ yd } 1 \text{ ft} + 2 \text{ ft} = \underline{5} \text{ yd}$

$$\begin{array}{r} 4 \text{ yd } 1 \text{ ft} \\ + 2 \text{ ft} \\ \hline 4 \text{ yds} + 3 \text{ ft} = 5 \text{ yds.} \end{array}$$

$1 \text{ yd} = 3 \text{ ft.}$

2. $6 \text{ yd} - 1 \text{ ft} = \underline{5} \text{ yd } \underline{2} \text{ ft}$

$18' - 1'$

$6 \text{ yd} = 5 \text{ yd } 3 \text{ ft.}$

$5 \text{ yd } 3 \text{ ft} - 1 \text{ ft} = 5 \text{ yd } 2 \text{ ft.}$

$1 \text{ yd} = 3 \text{ ft.}$

$6 \text{ yd.} = 18 \text{ ft.}$

$6 \text{ yds.} = 5 \text{ yd} + 3 \text{ ft.}$

3. $4 \text{ yd } 1 \text{ ft} + 3 \text{ yd } 2 \text{ ft} = \underline{8} \text{ yd}$

$$\begin{array}{r} 4 \text{ yd } 1 \text{ ft} \\ + 3 \text{ yd } 2 \text{ ft} \\ \hline 7 \text{ yd. } 3 \text{ ft.} \end{array}$$

4. $8 \text{ yd } 1 \text{ ft} - 3 \text{ yd } 2 \text{ ft} = \underline{4} \text{ yd } \underline{2} \text{ ft}$

$8 \text{ yd } 1 \text{ ft} = 7 \text{ yd. } 4 \text{ ft.}$

$$\begin{array}{r} 7 \text{ yd } 4 \text{ ft.} \\ - 3 \text{ yd. } 2 \text{ ft.} \\ \hline 4 \text{ yd. } 2 \text{ ft.} \end{array}$$

Name _____

Date _____

Determine the following sums and differences. Show your work.

1. $4 \text{ lb } 6 \text{ oz} + 10 \text{ oz} = \underline{5} \text{ lb } \underline{0} \text{ oz}$

$$4 \text{ lb } 6 \text{ oz} + 10 \text{ oz} = 5 \text{ lb.}$$

$$\begin{array}{r} \diagdown \quad \checkmark \\ 16 \text{ oz} \\ \downarrow \\ 1 \text{ lb.} \end{array}$$

2. $12 \text{ lb } 4 \text{ oz} + 3 \text{ lb } 14 \text{ oz} = \underline{16} \text{ lb } \underline{2} \text{ oz}$

$$15 \text{ lb. } 4 \text{ oz} + 14 \text{ oz.}$$

$$15 \text{ lb } 18 \text{ oz} = 16 \text{ lb. } 2 \text{ oz.}$$

$$\begin{array}{r} \wedge \\ 16 \text{ oz } 2 \text{ oz.} \end{array}$$

3. $5 \text{ lb } 4 \text{ oz} - 12 \text{ oz} = \underline{4} \text{ lb } \underline{8} \text{ oz}$

$$5 \text{ lb } 4 \text{ oz.} - 12 \text{ oz.} = 4 \text{ lb. } 8 \text{ oz.}$$

$$\begin{array}{r} \wedge \\ 4 \text{ lb. } 16 \text{ oz} \end{array}$$

4. $20 \text{ lb } 5 \text{ oz} - 13 \text{ lb } 7 \text{ oz} = \underline{6} \text{ lb } \underline{14} \text{ oz}$

$$7 \text{ lb } 5 \text{ oz} - 7 \text{ oz.} = 6 \text{ lb. } 14 \text{ oz.}$$

$$\begin{array}{r} \wedge \\ 6 \text{ lb. } 16 \text{ oz.} \end{array}$$

Name _____

Date _____

Find the following sums and differences. Show your work.

1. 2 hr 25 min + 25 min = 2 hr 50 min

$$\begin{array}{l} 1 \text{ hr.} = 60 \text{ mins} \\ 2 \text{ hrs} = 120 \text{ mins} \end{array}$$

$$\begin{array}{r} 25 \\ + 25 \\ \hline 50 \end{array}$$

2. 4 hr 45 min + 2 hr 35 min = 7 hr 20 min

$$\begin{array}{l} 6 \text{ hr} + 1 \text{ hr. } 20 \text{ min} = \\ 7 \text{ hr } 20 \text{ min} \end{array}$$

$$\begin{array}{r} 4 \text{ hr. } 45 \text{ min} \\ + 2 \text{ hr. } 35 \text{ min} \\ \hline 6 \text{ hr. } 80 \text{ min} \end{array}$$

$$\begin{array}{l} 80 \text{ min} = 1 \text{ hr} \\ 20 \text{ min} \end{array}$$

3. 11 hr 6 min - 32 min = 10 hr 34 min

$$\begin{array}{r} 11 \text{ hr. } 6 \text{ min} \\ - 32 \text{ min} \\ \hline \end{array}$$

$$\begin{array}{r} 10 \text{ hr. } 66 \text{ min} \\ - 32 \text{ min} \\ \hline 10 \text{ hr } 34 \text{ min} \end{array}$$

4. 8 hr 9 min - 6 hr 42 min = 1 hr 27 min

$$\begin{array}{r} 8 \text{ hr. } 9 \text{ min} \\ - 6 \text{ hr. } 42 \text{ min} \\ \hline \end{array}$$

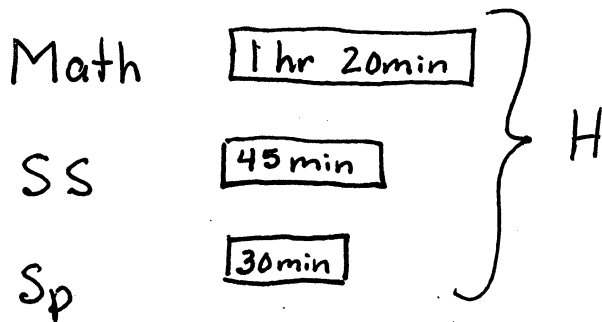
$$\begin{array}{r} 7 \text{ hr. } 69 \text{ min} \\ - 6 \text{ hr. } 42 \text{ min} \\ \hline 1 \text{ hr. } 27 \text{ min} \end{array}$$

Name _____

Date _____

Use RDW to solve the following problem.

Hadley spent 1 hour and 20 minutes completing her math homework, 45 minutes completing her social studies homework, and 30 minutes studying her spelling words. How much time did Hadley spend on homework and studying?



$$\begin{aligned} H &= 1 \text{ hr } 20 \text{ min} + 45 \text{ min} + 30 \text{ min} \\ &= 1 \text{ hr } 95 \text{ min} \\ &\quad \quad \quad \wedge \\ &\quad \quad \quad 60 \quad 35 \\ &= 2 \text{ hr } 35 \text{ min} \end{aligned}$$

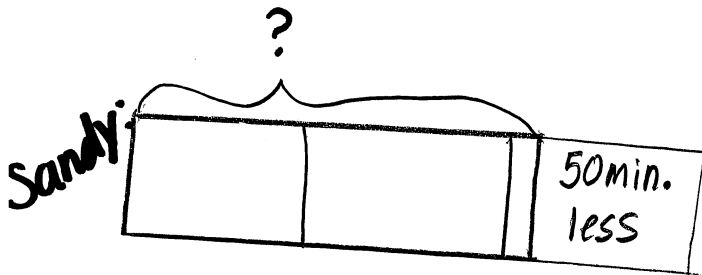
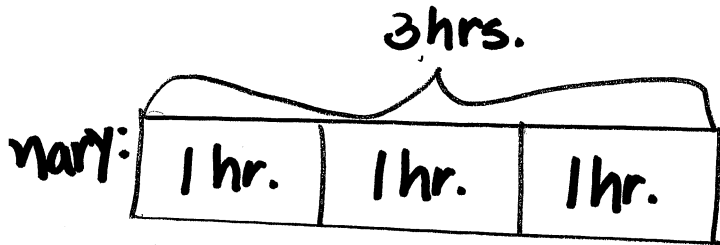
Hadley spent 2 hr 35 min on homework and studying.

Name _____

Date _____

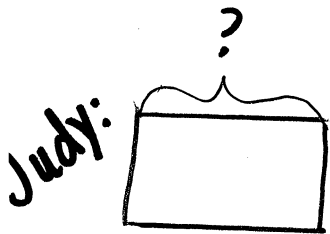
Use RDW to solve the following problem.

Judy spent 1 hour 15 minutes less than Sandy exercising last week. Sandy spent 50 minutes less than Mary, who spent 3 hours at the gym. How long did Judy spend exercising?



$$3 \text{ hr} - 50 \text{ min} =$$

Sandy: $2 \text{ hr. } 60 \text{ min} - 50 \text{ min} = 2 \text{ hr. } 10 \text{ min}$



$$\begin{array}{r} \text{sandy } 2 \text{ hr. } 10 \text{ min} \\ \text{Judy } - 1 \text{ hr. } 15 \text{ min} \\ \hline \end{array} \quad \begin{array}{r} 1 \text{ hr. } 70 \text{ min} \\ - 1 \text{ hr. } 15 \text{ min} \\ \hline 55 \text{ min.} \end{array}$$

Judy spent 55 minutes exercising.

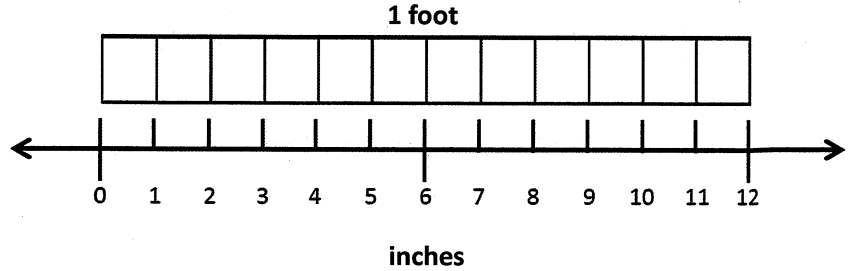
Name _____

Date _____

1. Solve the problems using whatever tool works best for you.

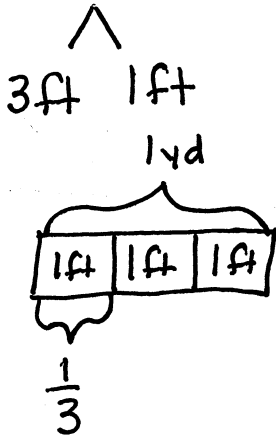
a. $\frac{6}{12}$ ft = $\frac{1}{2}$ ft = 6 in

b. $\frac{9}{12}$ ft = $\frac{3}{4}$ ft = 9 in

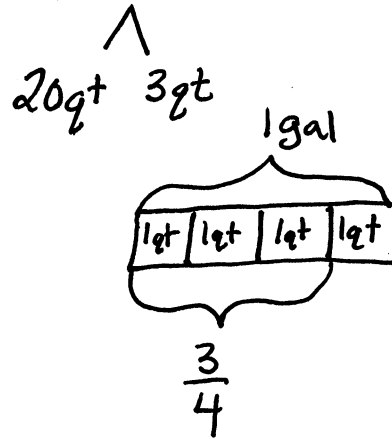


2. Solve.

a. $1\frac{1}{3}$ yd = 4 ft



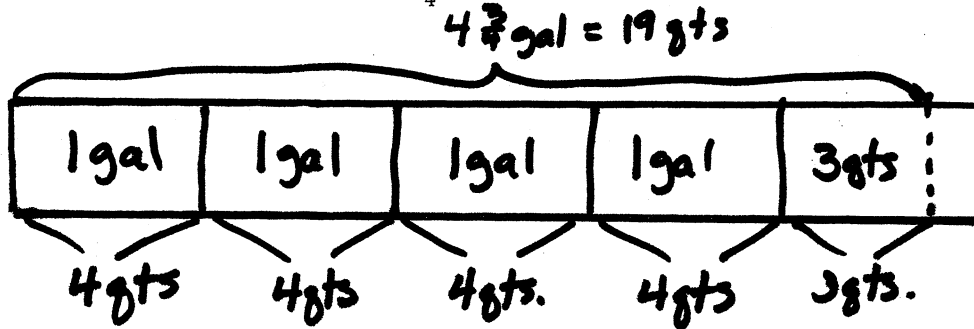
b. $5\frac{3}{4}$ gal = 23 qt



Name _____

Date _____

1. Draw a tape diagram to show that $4\frac{3}{4}$ gallons = 19 quarts.



2. Solve.

<p>a. $1\frac{1}{4}$ pounds = <u>20</u> ounces $\frac{1}{4} = \frac{4}{16}$</p> <p>16oz 4oz</p>	<p>b. $2\frac{3}{4}$ hr = <u>165</u> min $\frac{3}{4} = \frac{45}{60}$</p> <p>120min 45min.</p>
<p>c. $5\frac{1}{2}$ feet = <u>66</u> inches $\frac{1}{2} = \frac{6}{12}$</p> <p>60" 6"</p>	<p>d. $3\frac{5}{6}$ ft = <u>46</u> in $\frac{5}{6} = \frac{10}{12}$</p> <p>36" 10"</p>

Reflection replaces exit Ticket for lesson 15

Name _____

Date _____

In the table below are topics that you learned in Grade 4 and that were used in today's lesson.

Answers

Choose 1 topic, and describe how you were successful in using it today.

Vary

2-digit by 2-digit multiplication	Area formula	Division of 3-digit number by 1-digit number
Subtraction of multi-digit numbers	Addition of multi-digit numbers	Solving multi-step word problems

Answers will vary

Name _____

Date _____

In the table below are skills that you learned in Grade 4 and that you used to complete today's lesson. These skills were originally introduced in earlier grades, and you will continue to work on them as you go on to later grades. Choose three topics from the chart and explain how you think you might build on and use them in Grade 5.

Multiply 2-digit by 2-digit numbers	Use the area formula to find the area of composite figures	Create composite figures from a set of specifications
Subtract multi-digit numbers	Add multi-digit numbers	Solve multi-step word problems
Construct parallel and perpendicular lines	Measure and construct 90° angles	Measure in centimeters

Answers will vary

Name _____

Date _____

1. What are you able to do now in math that you were not able to do at the beginning of Grade 4?
2. Which activities would you like to practice this summer in order to keep fluent or become more fluent?
3. What type of practice would help you build your fluency with these concepts?

Reflection replaces exit ticket for lesson 18

A STORY OF UNITS

Lesson 18 Reflection 4•7

Answers
will vary

Name _____

Date _____

1. Why do you think vocabulary was such an important part of fourth-grade math? How does vocabulary help you in math?

2. Which vocabulary terms do you know well, and which would you like to improve upon?

Terminology

New or Recently Introduced Terms

- Cup (c) (customary unit of measure for liquid volume)
- Customary system of measurement (measurement system commonly used in the United States that includes such units as yards, pounds, and gallons)
- Customary unit (e.g., foot, ounce, quart)
- Gallon (gal) (customary unit of measure for liquid volume)
- Metric system of measurement (base ten system of measurement used internationally that includes such units as meters, kilograms, and liters)
- Metric unit (e.g., kilometer, gram, milliliter)
- Ounce (oz) (customary unit of measure for weight)
- Pint (pt) (customary unit of measure for liquid volume)
- Pound (lb) (customary unit of measure for weight)
- Quart (qt) (customary unit of measure for liquid volume)

Familiar Terms and Symbols²

- Capacity (the maximum amount that a container can hold)
- Convert (to express a measurement in a different unit)
- Distance (the length of the line segment joining two points)
- Equivalent (the same)
- Foot (ft) (customary unit of measure for length)
- Gram (g), kilogram (kg) (metric units of measure for mass, not distinguished from weight at this time)
- Hour (hr) (unit of measure for time)
- Inch (customary unit of measure for length, 12 inches = 1 foot)
- Interval (time passed or a segment on the number line)
- Length (the measurement of something from end to end)
- Liter (L), milliliter (mL) (metric units of measure for liquid volume)
- Measurement (dimensions, quantity, or capacity as determined by comparison with a standard)
- Meter (m), centimeter (cm), kilometer (km), (metric units of measure for length)
- Minute (min) (unit of measure for time)
- Mixed units (e.g., 3 m 43 cm)
- Second (sec) (unit of measure for time)
- Table (used to represent data)
- Weight (the measurement of how heavy something is)
- Yard (yd) (customary unit of measure for length)

² These are terms and symbols students have seen previously.