Estimate Capacity (Cups, Pints, Quarts, Gallons)

Capacity is the amount of space inside a container. You can measure capacity in cups, quarts, or gallons.

- Cups are the smallest unit.
  - 1 cup is about 1 serving.
- Pints are twice as much as cups.
  - 1 pint = 2 cups
- Quarts are four times as much as cups.
  - 1 quart = 4 cups
- Gallons are four times as much as quarts.
  - 1 gallon = 4 quarts

**Example 1**

Which unit is best to measure the water in a barrel?
The barrel is large, so gallons would be best.

**Example 2**

Choose the best unit to measure the amount of water in a drinking glass.

A. cups  B. pints  C. quarts  D. gallons

A drinking glass is about one serving, so use cups.
Estimate the capacity. Use cups, quarts, gallons.

1. 
   
   ______ cups  
   ______ quarts  
   ______ gallons

2. 
   
   ______ cups  
   ______ quarts  
   ______ gallons

3. 
   
   ______ cups  
   ______ quarts  
   ______ gallons

Choose the best unit of measure. Circle it.

4. water in a swimming pool
   A cups  
   B pints  
   C quarts  
   D gallons

5. water in a flower vase
   F cups  
   G pints  
   H quarts  
   J gallons

6. gas in a car
   K cups  
   L pints  
   M quarts  
   N gallons

Estimates may vary. Check that students can explain how they calculated equivalent units based on their estimates.

7. There are 14 children at a party.
   Jo has 2 gallons of juice.
   Can each child have 2 cups? Show how you know.

__________________________________________________________________________
Estimate the capacity. Use cups, quarts, gallons.

1. 
   - 2 cups
   - 2 quarts
   - 1 gallon

2. 
   - 4 cups
   - 1 quart
   - 1 gallon

3. 
   - 16 cups
   - 4 quarts
   - 1 gallon

Choose the best unit of measure. Circle it.

4. water in a large fish aquarium
   - A cups
   - B pints
   - C quarts
   - D gallons

5. milk in a cereal bowl
   - F cups
   - G pints
   - H quarts
   - J gallons

6. gas in a bus
   - K cups
   - L pints
   - M quarts
   - N gallons

Math Reasoning

Measurement

7. There are 12 children at a party. May has 3 gallons of juice. Can each child have 3 cups? Show how you know.
Estimate the capacity. Use cups, quarts, gallons.

1. __16__ cups
   __4__ quarts
   __1__ gallons

2. __4__ cups
   __1__ quarts
   __1/4__ gallons

3. __2__ cups
   __1/2__ quarts
   __1/8__ gallons

Estimates may vary. Check that students can explain how they calculated equivalent units based on their estimates.

Choose the best unit of measure. Circle it.

4. water in a swimming pool
   A cups
   B pints
   C quarts
   D gallons

5. water in a flower vase
   F cups
   G pints
   H quarts
   J gallons

6. gas in a car
   K cups
   L pints
   M quarts
   N gallons

MATH REASONING

7. There are 14 children at a party.
   Jo has 2 gallons of juice.
   Can each child have 2 cups? Show how you know.
   
   Yes; possible answer: 2 gallons = 8 quarts, 8 quarts = 32 cups
   
   14 \times 2 = 28, 14 children would need 28 cups of juice, 32 > 28.
Estimate the capacity. Use cups, quarts, gallons.

1. **Milk**
   - cups
   - quarts
   - gallons

2. **Juice**
   - cups
   - quarts
   - gallons

3. **Milk**
   - cups
   - quarts
   - gallons

Estimates may vary. Check that students can explain how they calculated equivalent units based on their estimates.

Choose the best unit of measure. Circle it.

4. water in a large fish aquarium
   - cups
   - pints
   - quarts
   - gallons

5. milk in a cereal bowl
   - cups
   - pints
   - quarts
   - gallons

6. gas in a bus
   - cups
   - pints
   - quarts
   - gallons

Estimates may vary. Check that students can explain how they calculated equivalent units based on their estimates.

7. There are 12 children at a party.
   May has 3 gallons of juice.
   Can each child have 3 cups? Show how you know.

   **yes; Possible answer: 3 gallons = 12 quarts, 12 quarts = 48 cups**

   \(12 \times 3 = 36\), 12 children would have 36 cups of juice. \(48 > 36\).