

Unit 3 Math Test Review

Name: _____ #: _____

Parent Signature (test alert): _____

Test is on: _____

1. a. $4.7 + 18 + 21.63 = ?$

Estimate:

Answer:

b. $? = 9 - 6.37$

Estimate:

Answer:

c. $? = 2.8 \times 3.4$

Estimate:

Answer:

d. $5.52 \div 1.6 = ?$

Estimate:

Answer:

2. A rectangular garden is 6.35 yards wide and 8.27 yards long. How much fencing will it take to enclose the garden?

Number model: _____

Solution: _____

3. Jamie earns \$1,978.37 per month.

How much money does she have left after paying all of these bills?

Rent: \$850.00

Groceries: \$299.87

Electricity: \$78.57

Number model: _____

Solution: _____

4. Bray Wyatt took his family to dinner. The total cost was \$38.75. He gave the cashier \$40.00. The cashier incorrectly gave him the \$2.35 in change. How much change should the Wyatt family have received?

Solution: _____

Explain what mistake the cashier might have made.

5. Use estimation to place the decimal in each answer. Explain or record a number sentence to show how you made your estimate.

a. $4.67 * 9.14 = 426838$ _____

b. $33.78 * 204.5 = 690801$ _____

c. $2,321.2 / 0.56 = 414500$ _____

6. Emileen buys a bunch of bananas for her weekly snacks. Bananas cost \$1.99 per pound. The bunch of bananas that she buys weighs 3.6 pounds. How much will Emileen pay for her bunch of bananas before tax? Show your work.

Solution: _____

7. Kristen paid \$47.32 to fill her car's gas tank with gas. If the gas tank was empty and the cost of gasoline was \$3.64 per gallon, how many gallons does the gas tank hold?

Number model: _____

Solution: _____

8. a. 30% of 50 is what number? _____

b. 65% of 80 is what number? _____

c. Explain how you found 30% of 50. _____

9. a. 20 is 10% of what number? _____

b. 35 is 20% of what number? _____

c. Explain how you found the number for problem a. _____

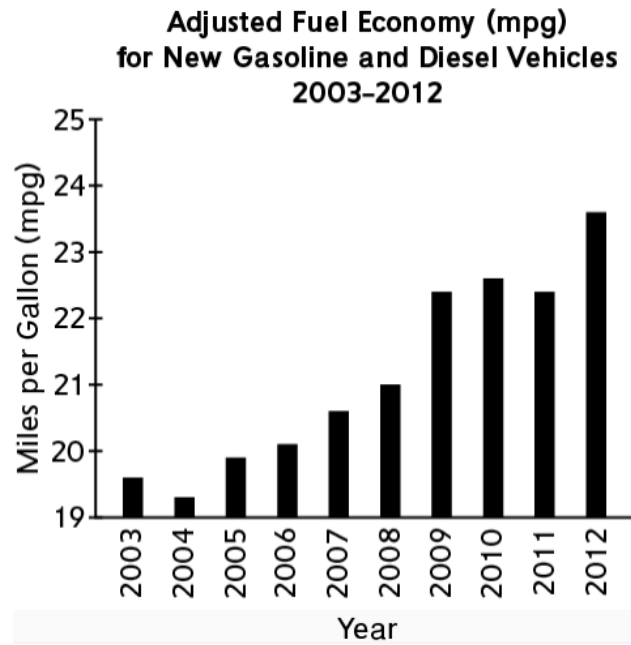
10. A salad dressing is 40% peanut oil. Greg wants to make 5 cups of dressing. How much peanut oil does he need?

Solution: _____

11. Julie withdraws \$175.00 from her bank account. This amount is 25% of her total savings. How much did she have in her account originally?

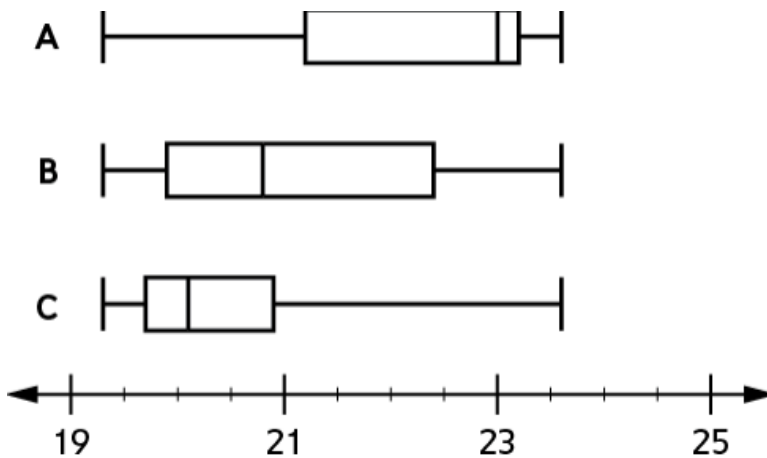
Solution: _____

12. The bar graph shows the overall average fuel efficiency of all automobiles.

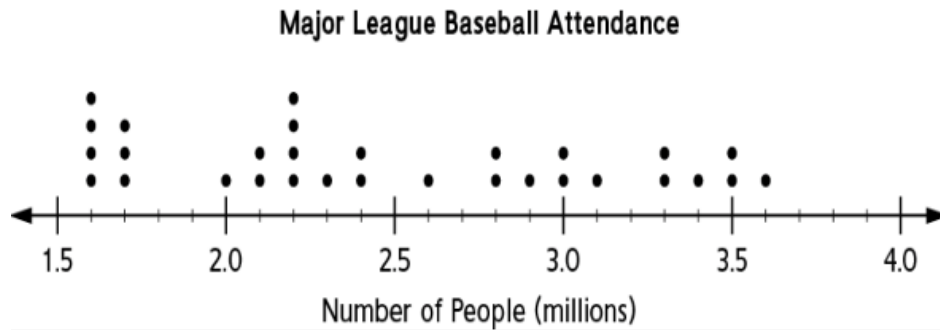


a. Describe what you know from the graph about vehicle fuel economy over the years.

b. Circle the box plot that best represents the same data.



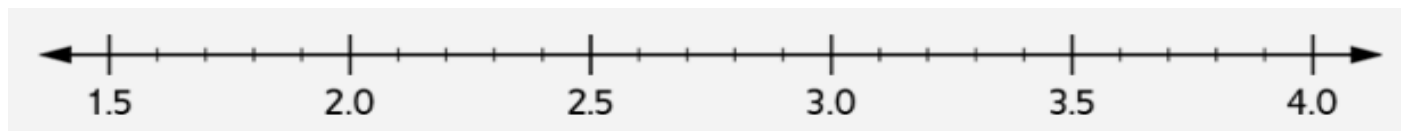
13. The dot plot below shows the total attendance (in millions, rounded to the nearest 0.1 million) at the 30 Major League Baseball stadiums during 2012.



a. Find the following data landmarks to describe the center and spread of the data.

Minimum: _____ Maximum: _____
 Range: _____ Median: _____
 Q1: _____ Q3: _____
 Interquartile range: _____ Mode(s): _____

14. Create a box plot to display the data given in Problem a.



15. Describe the advantages and disadvantages of your box plot representation of Major League Baseball attendance data.

Unit 3 Math Test Review

Name: Key #:

Parent Signature (test alert): _____

Test is on: _____

1. a. $4.7 + 18 + 21.63 = ?$

Estimate:

$5 + 18 + 22 = 45$

Answer:

$$\begin{array}{r} 44.33 \\ + 21.63 \\ \hline 44.33 \end{array}$$

c. $? = 2.8 \times 3.4$

Estimate:

$3 \times 3 = 9$

Answer: 9.52

$$\begin{array}{r} 2.8 \\ \times 3.4 \\ \hline 112 \\ 840 \\ \hline 952 \end{array}$$

b. $? = 9 - 6.37$

Estimate:

$9 - 6 = 3$

Answer:

2.63

$$\begin{array}{r} 89 \text{ } 10 \\ 9.00 \\ - 6.37 \\ \hline 2.63 \end{array}$$

d. $5.52 / 1.6 = ?$

Estimate:

$6 / 2 = 3$

Answer:

3.45

$$\begin{array}{r} 3.45 \\ 1.6 \overline{) 5.520} \\ \underline{-48} \\ 72 \\ \underline{-64} \\ 80 \\ \underline{-80} \\ 0 \end{array}$$

2. A rectangular garden is 6.35 yards wide and 8.27 yards long. How much fencing will it take to enclose the garden?

Number model: $(6.35 \times 2) + (8.27 \times 2)$

OR $6.35 + 8.27 + 6.35 + 8.27$

Solution: 29.24 yards



3. Jamie earns \$1,978.37 per month.

How much money does she have left after paying all of these bills?

Rent: \$850.00

Groceries: \$299.87

Electricity: \$78.57

Number model: $1978.37 - (850 + 299.87 + 78.57)$

Solution: \$749.93

4. Bray Wyatt took his family to dinner. The total cost was \$38.75. He gave the cashier \$40.00. The cashier incorrectly gave him the \$2.35 in change. How much change should the Wyatt family have received?

$$\begin{array}{r} \overset{3}{4}0.\overset{9}{9}\overset{10}{00} \\ - 38.75 \\ \hline 1.25 \end{array}$$

Solution: \$1.25

Explain what mistake the cashier might have made.

The cashier may have counted up incorrectly to make the change, thinking $38 + 2 = 40$, $7 + 3 = 10$, $5 + 5 = 10$ to get \$2.35

5. Use estimation to place the decimal in each answer.

Explain or record a number sentence to show how you made your estimate.

a. $4.67 \times 9.14 = 426838$ $5 \times 9 = 45$
so 42.6838

b. $33.78 \times 204.5 = 690801$ $30 \times 200 = 6000$
so 6908.01

c. $2,321.2 / 0.56 = 414500$ $2300 \div \frac{1}{2} = 2300 \times \frac{2}{1} = 4600$
OR $2300 \div 1 = 2300$ so 4145.00

6. Emileen buys a bunch of bananas for her weekly snacks. Bananas cost \$1.99 per pound.

The bunch of bananas that she buys weighs 3.6 pounds.

How much will Emileen pay for her bunch of bananas before tax? Show your work.

$$\begin{array}{r} \overset{2}{\$} \overset{2}{1}.\overset{2}{9}9 \\ \times 3.6 \\ \hline 1194 \\ 5970 \\ \hline 7.164 \end{array}$$

Solution: \$7.16

7. Kristen paid \$47.32 to fill his car's gas tank with gas. If the gas tank was empty and the cost of gasoline was \$3.64 per gallon, how many gallons does the gas tank hold?

Number model: $47.32 \div 3.64 =$

Solution: 13 gallons

$$3.64 \overline{)47.32}$$

8. a. 30% of 50 is what number? 15

b. 65% of 80 is what number? 52

c. Explain how you found 30% of 50. Since 30% = $\frac{3}{10}$, I

multiplied $\frac{3}{10} \times 50$ to get 15.

$$\frac{3}{10} \times \frac{50}{1} = \frac{150}{10} = 15$$

9. a. 20 is 10% of what number? 200

b. 35 is 20% of what number? 175

c. Explain how you found the number for problem a. I used equivalent

fractions where $\frac{20}{x} = \frac{10}{100}$. I know you need

to double 10 to get 20, so I doubled 100 to

10. A salad dressing is 40% peanut oil. Greg wants to make 5 cups of dressing. How much peanut oil does she need?

40% of 5

$$\frac{40}{100} = \frac{x}{5}$$

$40 \div 20 = 2$

$+20$

Solution: 2 cups

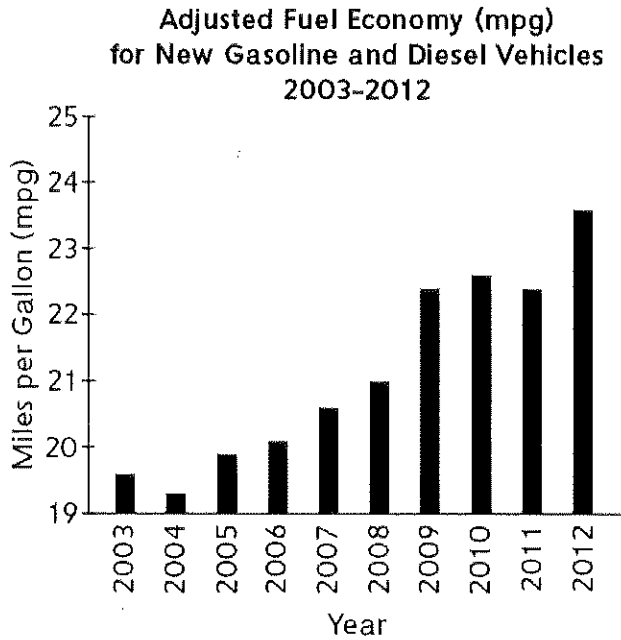
11. Julie withdraws \$175.00 from his bank account. This amount is 25% of his total savings. How much did he have in his account originally?

| | | |
|-----------|---------|--------|
| money | +175.00 | \$ 700 |
| % of acct | 25% | 100% |

Solution: \$ 700.00

\curvearrowright
 $\times 4$

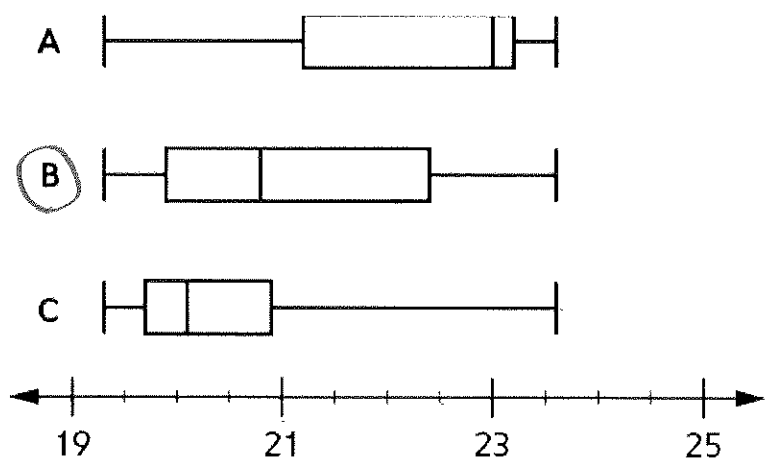
12. The bar graph shows the overall average fuel efficiency of all automobiles.



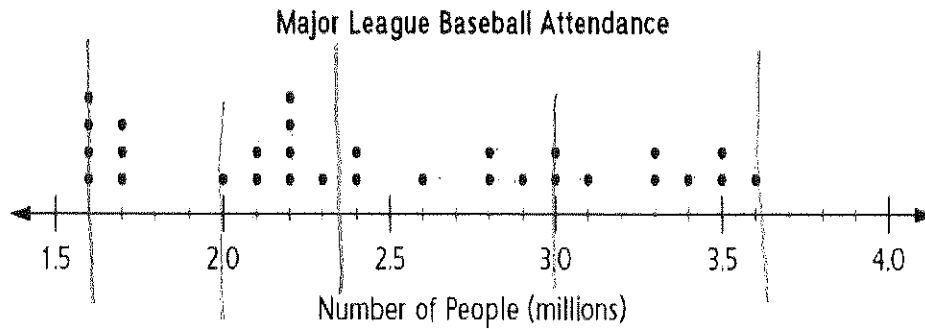
a. Describe what you know from the graph about vehicle fuel economy over the years.

The miles per gallon increased between 2003-2012, with the greatest increases coming from 2008-2009 and 2011-2012.

b. Circle the box plot that best represents the same data.



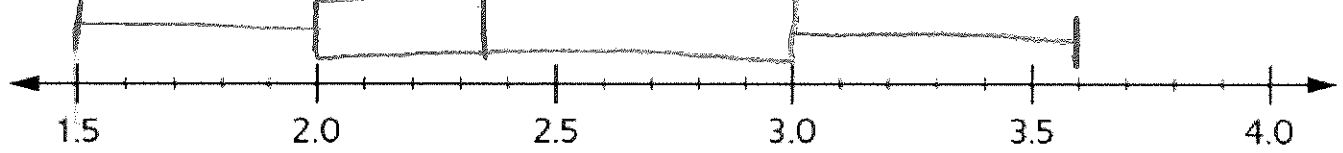
13. The dot plot below shows the total attendance (in millions, rounded to the nearest 0.1 million) at the 30 Major League Baseball stadiums during 2012.



a. Find the following data landmarks to describe the center and spread of the data.

Minimum: 1.6 Maximum: 3.6
 Range: 2 Median: 2.35
 Q1: 2.0 Q3: 3.0
 Interquartile range: 1.0 Mode: 1.6 and 2.2

14. Create a box plot to display the data given in Problem a.



15. Describe the advantages and disadvantages of your box plot representation of Major League Baseball attendance data.

The box plot does not show each data point, so you cannot determine the mean by looking at it. With a dot plot you can find all the landmarks. A box plot shows how the data is distributed and whether or not the data is bunched in different quarters.