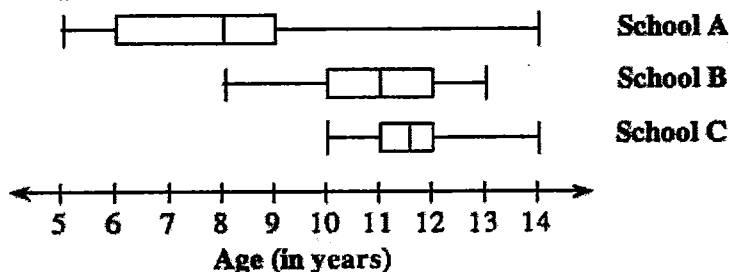


Review & Preview

- 8-56. How do box plots help compare data? Think about this question as you compare the data below that shows the ages of students at the three schools.



- Which school is a K-8 school? How do you know? Does that school have more students in grades K-2, 3-5, or 6-8? Why? School A; because the ages range from 5 to 14. School A has more students in K-2 because half of the students are less than 8 yrs old according to the median.
- What does the box plot for School C tell you about 11-year-old students at that school? 11 yr olds make up about 50% of the school.
- How many students attend School C? It cannot be determined from the box plot.
- What statements can you make about the students at School B based on its box plot? Consider the center, shape, spread, and outliers.
  - Symmetric
  - IQR is 2 yrs
  - School B has about the same amount of students in each age
  - Median = 11

- 8-57. Complete the following division problems.

a.  $5\frac{2}{3} \div 1\frac{1}{3}$      $\frac{17}{3} \div \frac{6}{5}$      $\frac{17}{3} \cdot \frac{5}{6} = \frac{85}{18} = \boxed{4\frac{13}{18}}$

b.  $14.76 \div 3.28$

$$\begin{array}{r} 4.5 \\ 3.28 \overline{) 14.760} \\ \underline{1312} \phantom{0} \\ 1648 \\ \underline{1648} \\ 0 \end{array}$$

c.  $7\frac{9}{10} \div 8\frac{4}{5}$      $\frac{79}{10} \div \frac{44}{5}$      $\frac{79}{10} \cdot \frac{5}{44} = \boxed{\frac{79}{88}}$

- 8-58. What are the next three numbers in the pattern: 1, 3, 7, 13, 21, ...? Describe the pattern in words. 31, 43, 57 The numbers increase by adding 2, 4, 6, 8, 10, 12 . . .

8-59. Write the prime factorization of each number listed below. Then find the least common multiple and the greatest common factor of each pair of numbers.

- a. 3 and 24  $3; 2^3 \cdot 3$  LCM 24 GCF 3  $\begin{matrix} 1, 3 \\ 1, 2, 3 \end{matrix} 4, 6, 8, 12, 24$
- b. 7 and 9  $7; 3^2$  LCM = 63 GCF = 1  $\begin{matrix} 1, 7 \\ 1, 3, 9 \end{matrix}$
- c. 15 and 12  $3 \cdot 5; 2^2 \cdot 3$  LCM = 60 GCF 3



8-60. This problem is a checkpoint for rewriting and evaluating algebraic expressions. It will be referred to as Checkpoint 8A.

In parts (a) through (d), use the Distributive Property to rewrite each expression. In parts (e) and (f), evaluate each expression using  $x = \frac{1}{2}$  and  $y = 3$ .

- a.  $3(2x + x)$   $6x + 3x$   
 $6(\frac{1}{2}) + 3(\frac{1}{2})$   $4\frac{1}{2}$
- b.  $2(x + 2y) + 3x$   $2x + 4y + 3x$   
 $5x + 4y$   
 $5(\frac{1}{2}) + 4(3)$   $14\frac{1}{2}$
- c.  $5x + 10$   $5(x + 2)$   
 $5(\frac{1}{2}) + 10$   
 $2\frac{1}{2} + 10$   $12\frac{1}{2}$
- d.  $24 + 18y$   $6(4 + 3y)$   
 $24 + 18(3)$   
 $24 + 54$   $78$
- e.  $6y^2$   $6(3)^2$   
 $6(9)$
- f.  $4x + 5y$   $54$   
 $4x + 5y$   
 $4(\frac{1}{2}) + 5(3)$   
 $2 + 15$

Check your answers by referring to the Checkpoint 8A materials.

- g. If you needed help solving these problems correctly, then you need more practice. Review the Checkpoint 8A materials and try the practice problems. Also consider getting help outside of class time. From this point on, you will be expected to do problems like this one quickly and easily.