Problem Solving

5-3 Dividing Fractions and Mixed Numbers

Write the correct answer in simplest form.

1. Horses are measured in units called hands. One inch equals $\frac{1}{4}$ hand. The average Clydesdale horse is $17\frac{1}{5}$ hands high. What is the horse’s height in inches? in feet?

2. Cloth manufacturers use a unit of measurement called a finger. One finger is equal to $4\frac{1}{2}$ inches. If 25 inches are cut off a bolt of cloth, how many fingers of cloth were cut?

3. People in England measure weights in units called stones. One pound equals $\frac{1}{14}$ of a stone. If a cat weighs $\frac{3}{4}$ stone, how many pounds does it weigh?

4. The hiking trail is $\frac{9}{10}$ mile long. There are 6 markers evenly posted along the trail to direct hikers. How far apart are the markers placed?

5. Phyllis bought 14 yards of material to make chair cushions. She cut the material into pieces $1\frac{3}{4}$ yards long to make each cushion. How many cushions did Phyllis make?

6. Dry goods are sold in units called pecks and bushels. One peck equals $\frac{1}{4}$ bushel. If Peter picks $5\frac{1}{2}$ bushels of peppers, how many pecks of peppers did Peter pick?

Choose the letter for the best answer.

7. A cake recipe calls for $1\frac{1}{2}$ cups of butter. One tablespoon equals $\frac{1}{16}$ cup. How many tablespoons of butter do you need to make the cake?
   A 24 tablespoons
   B 8 tablespoons
   C $\frac{3}{32}$ tablespoon
   D 9 tablespoons

8. Printed letters are measured in units called points. One point equals $\frac{1}{72}$ inch. If you want the title of a paper you are typing on a computer to be $\frac{1}{2}$ inch tall, what type point size should you use?
   F 144 point
   G 36 point
   H $\frac{1}{36}$ point
   J $\frac{1}{144}$ point