Estimating with Fractions and Mixed Numbers

Round each fraction to the nearest benchmark number $(0, \frac{1}{2}, \text{ or } 1)$, then estimate each sum or difference below.

1)
$$\frac{1}{6} + \frac{5}{8}$$

2)
$$\frac{7}{8} - \frac{1}{16}$$

3)
$$\frac{9}{10} + \frac{7}{8}$$

4)
$$\frac{1}{10} + \frac{5}{6}$$

5)
$$\frac{4}{5} - \frac{1}{6}$$

6)
$$\frac{11}{12} - \frac{5}{10}$$

Round each mixed number to the nearest whole, then estimate the following sums, differences and products.

7)
$$4\frac{9}{10} - 3\frac{5}{8}$$

8)
$$14\frac{3}{4} + 9\frac{7}{8}$$

9)
$$5\frac{1}{6} \cdot 8\frac{4}{5}$$

10)
$$3\frac{5}{6} \times 10\frac{1}{12}$$

11) Mr. Colby's truck gets $11\frac{5}{9}$ miles per gallon gas mileage. The truck's gas tank holds $17\frac{2}{15}$ gallons of gas. About how far can Mr. Colby drive on a full tank of gas?



Estimate the following quotients of mixed numbers by rounding each mixed number to the nearest whole, then using compatible numbers.

12)
$$13\frac{1}{8} \div 6\frac{1}{5}$$

13)
$$8\frac{1}{6} \div 1\frac{9}{10}$$

14)
$$27\frac{6}{7} \div 3\frac{2}{3}$$

15)
$$9\frac{1}{3} \div 2\frac{7}{8}$$

16)
$$19\frac{4}{5} \div 4\frac{5}{8}$$

17)
$$72\frac{2}{15} \div 8\frac{3}{4}$$

18) A fabric store has $80\frac{3}{8}$ yd of a particular fabric. About how many curtains could be made from this fabric if each curtain requires $4\frac{1}{8}$ yd of fabric?

