Using Units Rates with Fractions

Name:

Solve each problem. Answer as a mixed number (if possible).

1) A machine made $3\frac{1}{2}$ pencils in $\frac{2}{5}$ of a minute. It made pencils at a rate of how many per minute?

2) It takes $2\frac{1}{2}$ spoons of chocolate syrup to make $\frac{1}{4}$ of a gallon of chocolate milk. How many spoons of syrup would it take to make 1 gallon of chocolate milk?

3) A bag with $3\frac{3}{5}$ quarts of peanuts can make $2\frac{5}{6}$ jars of peanut butter. How many quarts of peanuts would you need to make 5 jars?

4) A carpenter goes through $3\frac{1}{3}$ boxes of nails finishing $\frac{4}{6}$ of a roof. How much would he use finishing the entire roof?

5) A bucket of water was $\frac{1}{3}$ full, but it still had $2\frac{2}{4}$ gallons of water in it. How much water would be in one fully filled bucket?

6) It takes $2\frac{1}{2}$ kilometers of thread to make $3\frac{1}{6}$ boxes of shirts. How many kilometers of thread will it take to make 2 boxes?

7) A cookie recipe called for $3\frac{1}{6}$ cups of sugar for every $3\frac{2}{6}$ cups of flour. If you made a batch of cookies using 3 cup of flour, how many cups of sugar would you need?

8) A chef had to fill up $\frac{1}{2}$ of a container with mashed potatoes. He ended up using $2\frac{3}{4}$ pounds of mashed potatoes. How many pounds would he use if he had to fill up the entire container?

9) A tire shop had to fill $2\frac{1}{4}$ tires with air. It took a small air compressor $2\frac{1}{6}$ seconds to fill them up. How long would it take to fill 7 tires?

10) A printer cartridge with $2\frac{1}{6}$ milliliters of ink will print off $3\frac{2}{3}$ reams of paper. How many milliliters of ink will it take to print 9 reams?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

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Answers

1. $8\frac{3}{4}$
2. $10\frac{0}{2}$
3. $6\frac{30}{85}$
4. $5\frac{0}{12}$
5. $7\frac{2}{4}$
6. $1\frac{22}{38}$
7. $2\frac{102}{120}$
8. $5\frac{2}{4}$
9. $6\frac{40}{54}$
10. $5\frac{21}{66}$

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