Fractions – mixed operations word problems

Grade 5 Word Problems Worksheet

1. A baker uses $\frac{1}{8}$ of a can of whipping cream and 3 scoops of sprinkles for every cupcake. How many cupcakes will be garnished with 5 cans of whipped cream?

2. Mr. Miller sells poutine for $10 a serving. Today, he was able to sell 56 servings. Three quarters of the number of servings were bought with a mango smoothie which cost $2. How many servings were sold with a mango smoothie? What was his sales total?

3. Of the 230 children in 6th grade, $\frac{3}{5}$ are boys. How many of the 6^{th} graders are girls? If $\frac{1}{4}$ of the girls are part of the student choir, how many of the girls are members of the choir?

4. Mr. Johnson is making leather shoes. Each pair of shoes uses $\frac{3}{4}$ of a yard of leather and $3\frac{1}{2}$ yards of nylon thread. How many pairs of shoes can he make out of 21 yards of leather?

5. Mom is making cookies for the kids. She uses $\frac{1}{5}$ of a cup of chocolate chips for each batch of cookies. Each batch makes 12 cookies. How many cookies can she make if she has a bag of chocolate chips that has 5 cups in it?

6. There are 4 boxes each containing 12 chocolate bars in the fridge. How many chocolate bars are there altogether? If $\frac{3}{8}$ of them are white chocolate bars and the rest are dark chocolate bars, how many dark chocolate bars are there?

Answers

1. $5 \div \frac{1}{8} = 40$
   The baker can garnish 40 cupcakes with 5 cans of whipping cream.

2. 10 x 56 = $560 sales for poutine
   $56 \times \frac{3}{4} = 42$ servings were with a mango smoothie
   42 x 2= $84 sales for mango smoothies
   560 + 84 = 644
   His sales total is $644.

3. $230 \times \frac{3}{5} = 138$ total number of boys
   230 – 138 = 92 total number of girls
   $92 \times \frac{1}{4} = 23$
   23 of the girls are members of the choir.

4. $21 \div \frac{3}{4} = 28$
   He can make 28 pairs of leather shoes.

5. $5 \div \frac{1}{5} = 25$; She can bake 25 batches of cookies.
   25 x 12 = 300
   She can make 300 cookies.

6. 4 x 12 = 48 chocolate bars
   $\frac{8}{8}$ (1 whole) $– \frac{3}{8} = \frac{5}{8}$ of the chocolate bars are dark chocolate
   $48 \times \frac{5}{8} = 30$
   There are 48 chocolate bars in the fridge and 30 of them are dark chocolate.