

13. Mixed Application — Worksheet C

Name: _____ **Class:** _____ **Date:** _____

Before solving, identify the whole and the meaning of the fraction.

1. $\frac{1}{3}$ of a class of 30 students are going on a trip. How many students are going?

2. $\frac{1}{4}$ of a \$40 bill is paid. How much has been paid?

3. A recipe needs $\frac{1}{2}$ cup of oil. You make 3 batches. How much oil is needed?

4. A ribbon is $\frac{3}{4}$ metre long. You use $\frac{1}{4}$ metre. How much remains? Explain which whole and operation are involved.

5. Which is larger: $\frac{1}{3}$ of 27 or $\frac{1}{4}$ of 30? Predict before calculating.

6. A student says $\frac{1}{2}$ of 20 must be less than 20 because it is a fraction. Explain the mistake.

7. A class has 28 students. $\frac{3}{4}$ are in band. How many are in band? How many are not in band?

8. Write two different meanings for $\frac{1}{2}$ and show that they describe the same number.

9. Create and solve a fraction-of-a-number problem whose answer is 18.

10. A student says $\frac{1}{2}$ of $12 = 6$ because the fraction is the answer. Explain why the fraction is an operator in this problem.

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11. A box contains 24 markers. $\frac{1}{3}$ are blue. How many markers are not blue?

12. **Representation challenge:** Represent $\frac{2}{3}$ of 18 with a context, a diagram, a division-and-scaling calculation, and a sentence.

13. **What matters and what doesn't:** A recipe book has 200 pages. A baker used $\frac{1}{4}$ of a 10 kg bag of sugar for one recipe, which took 45 minutes to prepare. How much sugar did the recipe use? Which details in this problem were not needed to answer it?

14. **Reconstruct the situation:** The expression $\frac{1}{2}$ of 24 represents a real situation. Write a context for this expression, and explain what the 24 and the $\frac{1}{2}$ mean in your situation.
