Exercise 6

Improper Fractions

An **improper fraction** is a fraction that has a numerator that is equal to or larger than its denominator. Change an improper fraction to a whole or mixed number by dividing the numerator by the denominator.

Change $\frac{27}{6}$ to a mixed number.

Divide 27 by 6.

$$6\overline{)27}$$ 4 **Whole number**

$$-24$$

3 **Remainder**

Use the remainder and divisor to write a fraction. Reduce the fraction to lowest terms.

$4\frac{3}{6}$

$4\frac{1}{2}$

Rewrite each fraction as a division problem.

1. $\frac{3}{2}$ **2.** $\frac{8}{6}$ **3.** $\frac{12}{4}$ **4.** $\frac{35}{6}$

5. $\frac{13}{10}$ **6.** $\frac{9}{4}$ **7.** $\frac{37}{12}$ **8.** $\frac{10}{7}$

Write each improper fraction as a whole number or mixed number.

9. $\frac{13}{2}$ **10.** $\frac{4}{3}$ **11.** $\frac{8}{6}$

12. $\frac{13}{4}$ **13.** $\frac{11}{8}$ **14.** $\frac{15}{5}$

15. $\frac{23}{10}$ **16.** $\frac{18}{2}$ **17.** $\frac{11}{7}$

18. $\frac{18}{6}$ **19.** $\frac{16}{7}$ **20.** $\frac{21}{2}$

Solve.

21. A local charity is holding a bake sale to raise money for the children's hospital in its area. The members cut several pies into sixths, so that they could sell individual slices.

If they have $\frac{30}{6}$ pies cut into slices, how many pies were cut into slices? _____

Directions: **Choose the one best answer to each item. Circle the number of the correct answer.**

22. Some large pizzas were cut into 8 slices. There are 24 slices of pizza total. How many pizzas is this?

(1) 2
(2) 3
(3) 4
(4) 5
(5) 6

23. Lindsay bought $\frac{9}{2}$ feet of trim for a dress. What mixed number represents this amount?

(1) $4\frac{1}{2}$ feet
(2) $3\frac{1}{3}$ feet
(3) $5\frac{1}{2}$ feet
(4) $4\frac{1}{3}$ feet
(5) $3\frac{1}{2}$ feet

24. Justin is training for a sports event. He is able to jump $\frac{13}{3}$ feet at this time. What mixed number represents Justin's jump?

(1) $4\frac{1}{3}$ feet
(2) 4 feet
(3) $2\frac{4}{3}$ feet
(4) $4\frac{2}{3}$ feet
(5) $5\frac{1}{3}$ feet

25. Amanda is extending the recipe for banana bread. Because she is tripling the recipe, she now needs $\frac{15}{4}$ cups of flour. How many whole cups of flour is this?

(1) $3\frac{3}{4}$
(2) $4\frac{1}{4}$
(3) $5\frac{1}{2}$
(4) $3\frac{1}{4}$
(5) $4\frac{3}{4}$

26. After baking three banana breads, Amanda cut 9 slices from each loaf. There were 27 slices in all. At lunch, she served one complete loaf and 4 slices from the second loaf. What is the improper fraction that shows the loaves she served?

(1) $\frac{9}{4}$
(2) $\frac{9}{5}$
(3) $\frac{8}{4}$
(4) $\frac{8}{9}$
(5) $\frac{13}{9}$

27. What is the mixed number that shows how many loaves Amanda served?

(1) $1\frac{5}{9}$
(2) $1\frac{4}{9}$
(3) $1\frac{1}{9}$
(4) $1\frac{3}{4}$
(5) $1\frac{2}{3}$

28. In money, $\frac{1}{10}$ of a dollar is worth 10¢. How much money is $\frac{12}{10}$ of a dollar?

(1) $1.20
(2) $12.00
(3) $0.12
(4) $1.21
(5) $0.20

29. Randi is making scenery for a theater company musical. He has $\frac{18}{4}$ feet of pole on which to staple a curtain. What mixed number shows the length of the pole?

(1) $4\frac{1}{8}$ feet
(2) $4\frac{1}{2}$ feet
(3) $4\frac{3}{4}$ feet
(4) $4\frac{1}{4}$ feet
(5) $5\frac{1}{4}$ feet