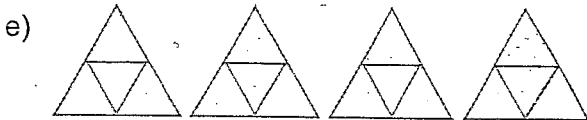
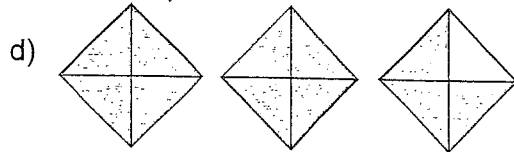
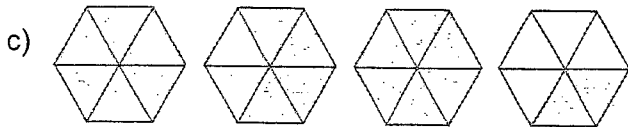
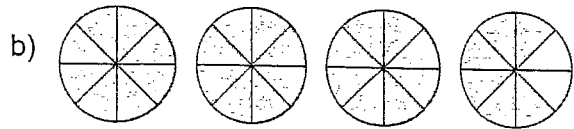
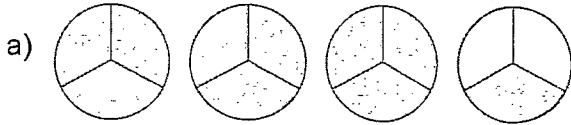
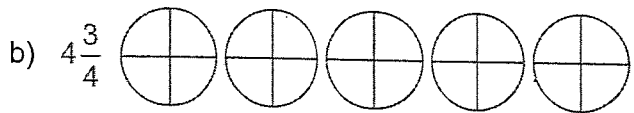
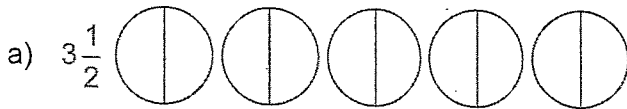


# NS7-21 Mixed Numbers and Improper Fractions

1. Write these fractions as mixed numbers and as improper fractions.



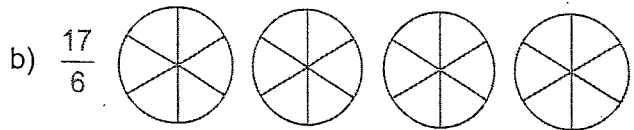
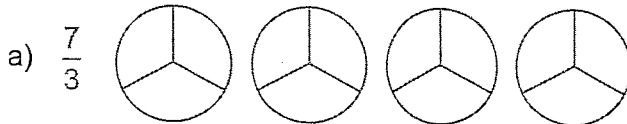
2. Shade the amount of pie given by the mixed number. Then write an improper fraction for the amount.



Improper fraction: \_\_\_\_\_

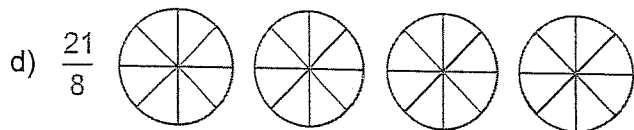
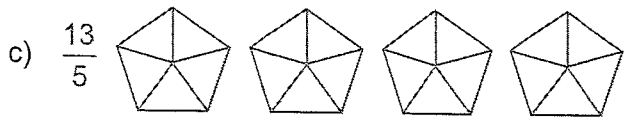
Improper fraction: \_\_\_\_\_

3. Shade the area given by the improper fraction. Then write a mixed number for the amount of area shaded.



Mixed number: \_\_\_\_\_

Mixed number: \_\_\_\_\_



Mixed number: \_\_\_\_\_

Mixed number: \_\_\_\_\_

4. Draw a picture to find out which fraction is greater.

a)  $3\frac{1}{2}$  or  $\frac{5}{3}$

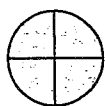
b)  $1\frac{4}{5}$  or  $\frac{11}{5}$

c)  $\frac{15}{8}$  or  $\frac{7}{3}$

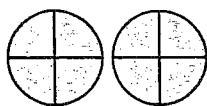
d)  $\frac{13}{4}$  or  $2\frac{2}{3}$

5. How could you use division to find out how many **whole** pies are in  $\frac{13}{5}$  of a pie? Explain.

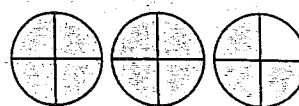
How many quarter pieces are in  $2\frac{3}{4}$  pies?



There are 4 quarter pieces in 1 pie.



There are 8 ( $2 \times 4$ ) quarters in 2 pies.



8 pieces ( $2 \times 4$ ) + 3 extra pieces = 11

$$2\frac{3}{4} = \frac{11}{4}$$

So there are 11 quarter pieces altogether.

6. Find the number of **halves** in each amount.

a) 1 pie = \_\_\_\_\_ halves

b) 2 pies = \_\_\_\_\_ halves

c) 4 pies = \_\_\_\_\_ halves

d)  $3\frac{1}{2}$  pies = \_\_\_\_\_ halves

e)  $4\frac{1}{2}$  pies = \_\_\_\_\_ halves

f)  $5\frac{1}{2}$  pies = \_\_\_\_\_

7. Each pie has 3 pieces, so each piece is a third. Find the number of **thirds** in each amount.

a) 1 pie = 3 thirds

b) 2 pies = \_\_\_\_\_ thirds

c) 4 pies = \_\_\_\_\_ thirds

d)  $1\frac{1}{3}$  pies = \_\_\_\_\_ thirds

e)  $2\frac{2}{3}$  pies = \_\_\_\_\_

f)  $5\frac{2}{3}$  pies = \_\_\_\_\_

8. A box holds 4 cans, so each can is a fourth. Find the number of **cans** each amount holds.

a) 2 boxes hold \_\_\_\_\_ cans.

b)  $2\frac{1}{4}$  boxes hold \_\_\_\_\_ cans.

c)  $3\frac{3}{4}$  boxes hold \_\_\_\_\_ cans.

9. If a bag holds 12 peas, then...

a)  $1\frac{1}{12}$  bags hold \_\_\_\_\_ peas.

b)  $2\frac{7}{12}$  bags hold \_\_\_\_\_ peas.

c)  $3\frac{11}{12}$  bags hold \_\_\_\_\_ peas.

10. Write the mixed numbers as improper fractions.

a)  $2\frac{1}{3} = \frac{\quad}{\quad}$

b)  $5\frac{1}{2} = \frac{\quad}{\quad}$

c)  $4\frac{2}{5} = \frac{\quad}{\quad}$

d)  $7\frac{1}{4} = \frac{\quad}{\quad}$

e)  $6\frac{3}{7} = \frac{\quad}{\quad}$

11. Envelopes come in packs of 6. Alice used  $2\frac{5}{6}$  packs. How many envelopes did she use? \_\_\_\_\_

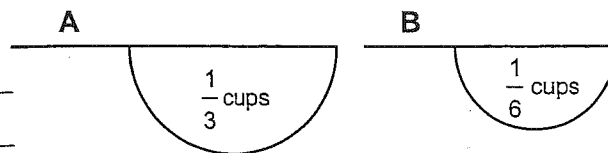
12. Maia and her friends ate  $4\frac{3}{4}$  pizzas. How many quarter-sized pieces did they eat? \_\_\_\_\_

13. **BONUS** ► How many quarters are there in  $4\frac{1}{2}$  dollars? \_\_\_\_\_

14. **BONUS** ► Cindy needs  $3\frac{2}{3}$  cups of flour.

a) How many scoops of cup A would she need? \_\_\_\_\_

b) How many scoops of cup B would she need? \_\_\_\_\_

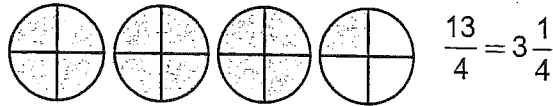


How many whole pies are there in  $\frac{13}{4}$  pies?

There are 13 pieces altogether, and each pie has 4 pieces.

So you can find the number of whole pies by dividing 13 by 4:  $13 \div 4 = 3$  remainder 1

There are 3 whole pies and 1 quarter left over:



15. Find the number of whole pies in each amount by dividing.

- a)  $\frac{4}{2}$  pies = \_\_\_\_\_ whole pies    b)  $\frac{15}{3}$  pies = \_\_\_\_\_ whole pies    c)  $\frac{8}{4}$  pies = \_\_\_\_\_ whole pies  
 d)  $\frac{21}{7}$  pies = \_\_\_\_\_ whole pies    e)  $\frac{20}{5}$  pies = \_\_\_\_\_ whole pies    f)  $\frac{24}{6}$  pies = \_\_\_\_\_ whole pies

16. Find the number of whole pies and the number of pieces remaining by dividing.

- a)  $\frac{5}{2}$  pies = 2 whole pies and 1 half pie =  $2\frac{1}{2}$  pies  
 b)  $\frac{9}{2}$  pies = \_\_\_\_\_ whole pies and \_\_\_\_\_ half pie = \_\_\_\_\_ pies  
 c)  $\frac{10}{3}$  pies = \_\_\_\_\_ whole pies and \_\_\_\_\_ third = \_\_\_\_\_ pies  
 d)  $\frac{13}{4}$  pies = \_\_\_\_\_ whole pies and \_\_\_\_\_ fourth = \_\_\_\_\_ pies

17. Divide the numerator by the denominator to write each improper fraction as a mixed number.

- a)  $\frac{13}{3}$      $13 \div 3 = 4$  R 1    b)  $\frac{13}{6}$      $13 \div 6 =$  \_\_\_ R \_\_\_    c)  $\frac{15}{4}$      $15 \div 4 =$  \_\_\_ R \_\_\_  
 So  $\frac{13}{3} = 4\frac{1}{3}$     So  $\frac{13}{6} =$  \_\_\_\_\_    So  $\frac{15}{4} =$  \_\_\_\_\_  
 d)  $\frac{3}{2} =$  \_\_\_\_\_    e)  $\frac{8}{3} =$  \_\_\_\_\_    f)  $\frac{22}{5} =$  \_\_\_\_\_  
 g)  $\frac{29}{7} =$  \_\_\_\_\_    h)  $\frac{57}{8} =$  \_\_\_\_\_    i)  $\frac{68}{9} =$  \_\_\_\_\_

18. Write a mixed number and improper fraction for the total number of litres.



19. Write a mixed number and improper fraction for the length of the rope.

