[11-02-10-I]

(b) A piece of string of length $\frac{5}{6}$ m is cut into 15 shorter pieces of equal length. Find the length of each shorter piece of string.

(c) Melvin used $\frac{3}{5}$ of the soil in a bag to fill 7 pots equally. What fraction of the bag of soil did each pot contain?

(d) Sixteen similar boxes of cookies weigh $\frac{8}{9}$ lb. How heavy is each box of cookies?

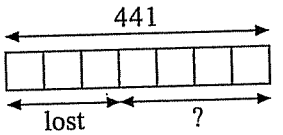
(e) Michael ate $\frac{3}{8}$ of a pizza. He divided the remaining pizza into 6 equal slices and gave one slice to his friend. What fraction of the pizza did his friend have?

WORD PROBLEMS

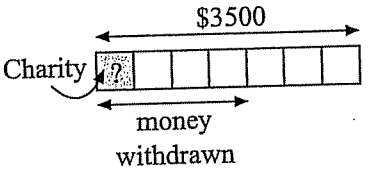
1. Alice used $1\frac{3}{5}$ m from a roll of ribbon to tie 10 Christmas presents. What is the length of ribbon used for each present, in centimeters?

2. Anthony received \$168 from his father. He saved $\frac{5}{6}$ of the money in the bank and spent the rest. How much money did he save?

3. Mariam had 441 stamps. She lost $\frac{3}{7}$ of them. How many stamps did she have left?



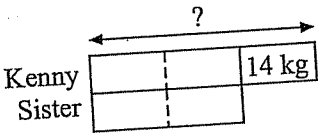
4. Sue had \$3500 in her bank account. She withdrew $\frac{4}{7}$ of the money and donated $\frac{1}{4}$ of this to charity. How much money did she donate to charity?



5. Mr. Magoo spent $\frac{1}{2}$ of his money on a stereo set and $\frac{1}{3}$ of his money on a television set. He then had \$400 left. How much did he pay for the television set?

6. Denise bought a box of 560 pieces of candy. $\frac{4}{5}$ of the pieces of candy were fruity and $\frac{1}{4}$ of the remaining pieces of candy were mint. How many pieces of candy of other flavors were there?

7. Kenny is $1\frac{1}{2}$ times as heavy as his sister. If Kenny is 14 kg heavier than his sister, how much does Kenny weigh?

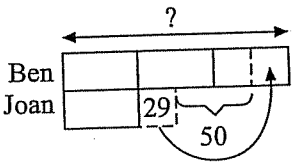


8. The length of a string is $1\frac{1}{3}$ times the length of a stick. If the length of the string is 64 in., what is the length of the stick?

9. Mimi had 126 stickers. She gave $\frac{2}{9}$ of them to her neighbor and 35 stickers to her brother. What fraction of the stickers did she have left?

10. $\frac{5}{12}$ of the guests at a party were female. There were 30 more male than female guests. Find the total number of guests at the party.

11. Ben had 50 more coins than Joan. After Joan had given 29 of her coins to Ben, she had $\frac{1}{3}$ as many coins as Ben. How many coins did Ben have at first?



12. 889 kindergarten kids participated in a drawing contest at a park. They were divided into two groups. $\frac{1}{3}$ of the girls and $\frac{1}{2}$ of the boys were in group A. There was an equal number of boys and girls in group B. Find the number of girls and the number of boys who participated in the drawing contest.

13. Mr. Tay had 20 female carps and 5 male carps in his pond.
    (a) What fraction of the carps were male?
    (b) Mr. Tay's father brought home some male carps and put them into the pond. Then he found that $\frac{1}{5}$ of the carps were female. How many male carps did his father put into the pond?

14. $\frac{3}{4}$ of the students who join a swimming club are boys. $\frac{4}{5}$ of the girls in the swimming club are under 10 years old while 5 girls are over 10 years old.

(a) How many girls are there in the club?

(b) If $\frac{1}{5}$ of the boys leave the swimming club, how many students will be left in the club?

15. Lisa used 880 g of a container of sugar to bake a cake and $\frac{1}{10}$ of the remaining sugar to make cookies. She then had $\frac{3}{7}$ of the container of sugar left. How much sugar was in the container at first?

Take the Challenge!

1. Dorothy lives on Spring Street. Some new friends wanted to visit her at home but they did not know her house number. She gave a little puzzle to help them find her house number. See if you can solve the puzzle below and work out Dorothy's house number on Spring Street.

   The sum of half the number, one-third of the number and one-quarter of the number is 221.

2. In a certain village, $\frac{2}{3}$ of the men married $\frac{3}{5}$ of the women. What fraction of the population in the village are married?

(Assume marriage of 1 male to 1 female, and no one is married to anyone living outside the village.)

3. Spring will be here soon and I want to plant some flowers in my garden where the length is longer than the width by 1 m.

$\frac{1}{3}$ of the garden will be planted with Sunflowers,

$\frac{1}{4}$ of the garden will be planted with Brown-Eyed Susans,

$\frac{1}{5}$ of the garden is to be planted with Columbine,

1 m^2 of the garden is to be planted with Foxglove

and the last $\frac{1}{6}$ of the garden with Geraniums.

Can you help me work out the length and width of my garden?

(b) (i) $\frac{3}{25}$ (ii) $\frac{22}{25}$

(c) (i) $\frac{2}{5}$ (ii) $\frac{3}{5}$

13. (a) $\frac{1}{21}$ (b) $\frac{1}{12}$ (c) $\frac{12}{25}$

(d) $\frac{5}{12}$ (e) 12 (f) $\frac{2}{9}$

(g) 9 (h) $\frac{11}{15}$ (i) $\frac{6}{11}$

(j) 3

14. (a) $\frac{3}{4}$kg (b) $\frac{4}{15}$ m

(c) $\frac{1}{10}$h (d) $\frac{5}{16}\ell$

15. (a) $\frac{1}{5}$ m^2 (b) $\frac{3}{5}$ qt

(c) $\frac{15}{64}$ kg (d) $\frac{1}{6}$ km

16. (a) $\frac{1}{7}$ (b) $\frac{1}{6}$ (c) $\frac{1}{2}$

(d) $\frac{3}{40}$ (e) $\frac{3}{34}$ (f) $\frac{3}{16}$

(g) $\frac{1}{24}$ (h) $\frac{8}{25}$ (i) $\frac{1}{36}$

(j) $\frac{2}{15}$

17. (a) $\frac{1}{4}\ell$ (b) $\frac{1}{18}$ m (c) $\frac{3}{35}$

(d) $\frac{1}{18}$ lb (e) $\frac{5}{48}$

Word Problems

1. 16 cm
2. \$140
3. 252 stamps
4. \$500
5. \$800
6. 84 pieces of candy
7. 42 kg
8. 48 in.
9. $\frac{1}{2}$
10. 180 guests
11. 133 coins
12. 381 girls, 508 boys
13. (a) $\frac{1}{5}$ (b) 75 male carps
14. (a) 25 girls (b) 85 students
15. 1680 g

Take the Challenge!

1. $\frac{1}{2}+\frac{1}{3}+\frac{1}{4}=\frac{13}{12}$

$221 \times \frac{12}{13} = 204$

The house number is 204.

2. $\frac{2}{3}$ of the men = $\frac{3}{5}$ of the women.

Hence $\frac{6}{9}$ of the men = $\frac{6}{10}$ of the women.

Units of unmarried men + units of unmarried women = 6 + 6. Total units = 9 + 10.

Fraction of the population that are married

$=\frac{6+6}{9+10}=\frac{12}{19}$

3. $\frac{1}{3}+\frac{1}{4}+\frac{1}{5}+\frac{1}{6}=\frac{57}{60}$

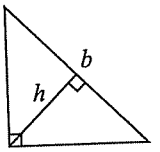
$\frac{3}{60}=\frac{1}{20}$ of garden $\rightarrow$ 1 m^2

Garden $\rightarrow$ 20 m^2

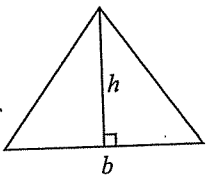
The length is 5 m and the width is 4 m.

Topic 4: Area of Triangle

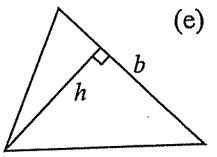
1. (b)



(c)



(d)



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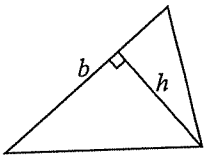
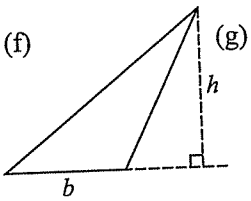
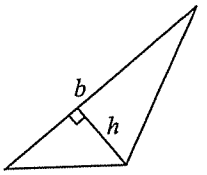


(f)



(g)



(h)