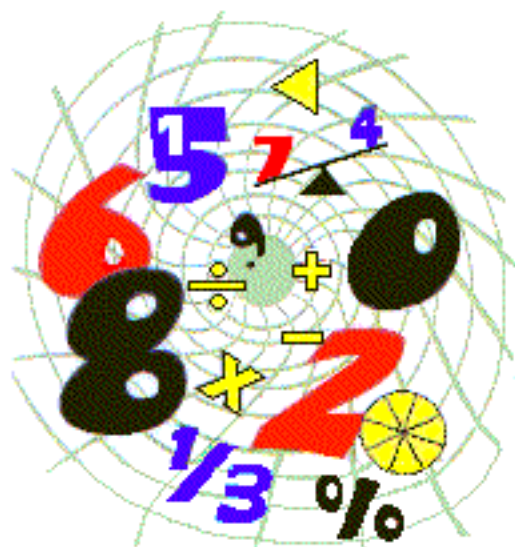
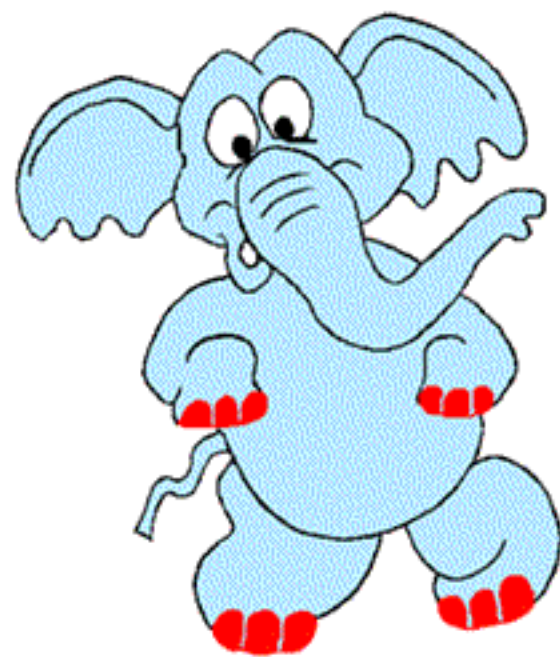


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Why did the elephant
paint its toenails red?



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--	--

1 2

--	--	--	--	--	--

1 3 4 5 6

--	--	--	--

7 8 9 2

--

8

--	--	--	--

10 11 12 13

--	--	--

14 8 15

--	--	--	--	--	--

12 8 16 11 3 12

What would happen if everyone had a pink car?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.



(1) _____



(2) _____



(3) _____



(4) _____



(5) _____



(6) _____



(7) _____



(8) _____



(9) _____



(10) _____



(11) _____



(12) _____



(13) _____



(14) _____



(15) _____



(16) _____

(V) 6:35

(H) 8:00

(W) 11:50

(C) 2:35

(A) 11:55

(R) 2:50

(D) 4:00

(O) 9:00

(L) 12:20

(T) 5:25

(U) 11:10

(K) 8:50

(I) 1:10

(N) 8:45

(P) 1:35

(E) 11:20

--	--

1 2

--	--	--	--

3 4 5 6

--	--

4 7

--	--	--

1 3 6

--	--	--	--	--	--	--	--	--	--	--	--

8 1 9 10 11 12 6 9 9 4 6 8

Why did the elephant paint its toenails red?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.

- | | |
|--|-----------|
| (1) $5,000 + 500 + 70 + 5 =$ | (I) 9,549 |
| (2) $3 \times 1,000 + 8 \times 100 + 8 =$ | (T) 5,575 |
| (3) 9 thousands + 4 hundreds + 6 tens + 3 = | (A) 6,295 |
| (4) 9 thousands + 5 hundreds + 4 tens + 9 = | (B) 7,852 |
| (5) 8 thousands + 1 hundred + 5 tens = | (H) 9,463 |
| (6) $2,000 + 600 + 50 + 9 =$ | (E) 2,659 |
| (7) $6,000 + 100 + 20 + 2 =$ | (R) 7,125 |
| (8) $7 \times 1,000 + 9 \times 100 + 2 \times 10 + 4 =$ | (D) 8,150 |
| (9) 7 thousands + 1 hundred + 2 tens + 5 = | (N) 6,122 |
| (10) $6,000 + 200 + 90 + 5 =$ | (O) 3,808 |
| (11) $8,000 + 700 + 90 + 2 =$ | (S) 7,924 |
| (12) $7 \times 1,000 + 8 \times 100 + 5 \times 10 + 2 =$ | (W) 8,792 |

--	--	--	--

1 2 3 4

--	--	--

5 6 1

--	--	--

1 7 4

--	--	--	--	--	--	--	--

4 8 4 9 7 2 10 1

How do you get a giraffe into a refrigerator?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.
Estimate by rounding.

(1)
$$\begin{array}{r} 578 \\ \times 88 \\ \hline \end{array}$$

(2)
$$\begin{array}{r} 448 \\ \times 15 \\ \hline \end{array}$$

(3)
$$\begin{array}{r} 56 \\ \times 96 \\ \hline \end{array}$$

(K) 6,000

(H) 10,000

(L) 56,000

(4)
$$\begin{array}{r} 24 \\ \times 51 \\ \hline \end{array}$$

(5)
$$\begin{array}{r} 57 \\ \times 58 \\ \hline \end{array}$$

(6)
$$\begin{array}{r} 547 \\ \times 91 \\ \hline \end{array}$$

(O) 3,600

(U) 45,000

(7)
$$\begin{array}{r} 510 \\ \times 17 \\ \hline \end{array}$$

(8)
$$\begin{array}{r} 840 \\ \times 71 \\ \hline \end{array}$$

(9)
$$\begin{array}{r} 98 \\ \times 29 \\ \hline \end{array}$$

(A) 8,000

(E) 1,000

(P) 3,000

(10)
$$\begin{array}{r} 312 \\ \times 67 \\ \hline \end{array}$$

(N) 21,000

(T) 54,000

--	--

1 2

--	--	--

3 4 5

--

4

--	--	--	--	--

5 6 7 7 8

--	--	--

9 4 8

How could the farmer see his cows if there was no moon out?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.

(1) Juan earns \$ 2.12 an hour. Mark earns \$ 9.71 an hour. How much less does Juan earn than Mark?

W 60.40

(2) You need 96 lengths of cable, 83 feet each. How many feet of cable do you need in all?

N 10

(3) Juice costs \$ 7.55 a case. You bought 8 cases. What was their total cost?

I 7.59

(4) If you have 144 acres of land and 8 horses, how many acres of land per horse is that?

Y 5

(5) Susan drove 66 meters this week, 42 meters last week and 69 meters the week before. How many meters did Susan drive altogether?

T 7,968

(6) You need to paint 354 square feet. If a can of paint covers 58 square feet, how many cans of paint do you need to buy?

A 18

(7) You have 92 cans. If you can fit 10 cans into a carton, how many cartons will you need?

S 177

(8) If you have 106 trees and it takes 19 trees to build a log cabin, how many complete cabins can you build?

D 37

(9) How many complete 4 ft. lengths can be cut from a 150 ft. length of wire?

U 7

1	2	3	4	5	6	7

8	9	10	11	12	3	13	

What is green and stampedes?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.

(1) Last week your daily earnings were \$ 36.60, \$ 183, \$ 146.40, \$ 128.10, and \$ 73.20. What was your average daily pay?

(P) 33

(2) Last year 230 students attended your school. This year 18 more attended. If a bus carries 20 students, how many buses does your school need?

(D) 7.30

(3) Eva had 11 balloons, then bought 14 more and gave 5 away. How many balloons does Eva have now?

(A) 113.46

(4) You bought 15 boxes of candy at \$ 2.37 each to share with 4 friends. If you share the cost equally, how much should each pay?

(L) 9.66

(5) Debbie spent \$ 2.65 for popcorn last month. This month Debbie spent \$ 2 more than last month. How much did Debbie spend for both months?

(S) 273

(6) Maureen has \$ 16. Raymond has \$ 12 more than Maureen and Roy has \$ 10 less than Raymond. How many dollars does Roy have?

(C) 5

(7) You have 13 boxes of hats in stock. Each box contains 36 hats. If you need to ship 565 hats, how many more hats will you need?

(E) 20

(8) If you earn \$ 18 an hour and work 7 hours a day, how many days will it take you to earn \$ 4,158 dollars?

(R) 7.11

(9) If you practice dancing 2 hours a day, 2 days a week, how many hours will you have practiced in 13 weeks?

(O) 18

(10) You need to paint a floor that is 32 feet by 38 feet. If a can of paint covers 270 square feet, how many cans will you need to buy?

(K) 9,180

(11) If a 1 foot by 1 foot floor tile costs \$ 6, how much will it cost to tile a floor 17 yards by 10 yards?

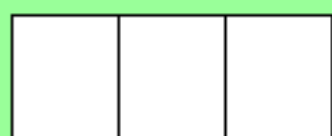
(I) 52

(12) Tyrone bought a video for \$ 8.16 and a train for \$ 2.18. How much change did Tyrone get back from a \$ 20 bill?

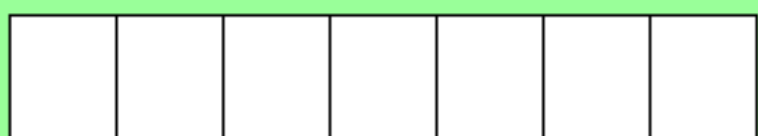
(F) 97

(13) You need to ship 260 crayons in boxes of 20. If each box weighs 21 pounds, what is the total weight of the boxes?

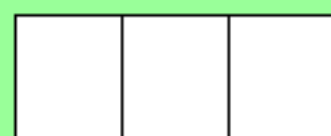
(H) 13



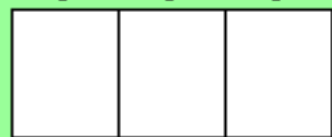
$$\frac{7}{9} \quad \frac{1}{3} \quad \frac{4}{6}$$



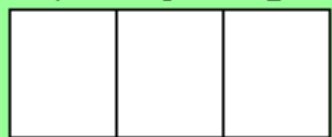
$$\frac{2}{7} \quad \frac{1}{3} \quad \frac{1}{2} \quad \frac{2}{7} \quad \frac{4}{5} \quad \frac{4}{6} \quad \frac{1}{8}$$



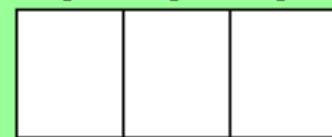
$$\frac{1}{3} \quad \frac{5}{7} \quad \frac{2}{5}$$



$$\frac{7}{9} \quad \frac{1}{3} \quad \frac{4}{6}$$



$$\frac{2}{5} \quad \frac{5}{7} \quad \frac{4}{9}$$

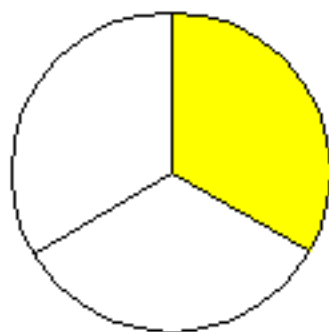


$$\frac{1}{4} \quad \frac{7}{8} \quad \frac{7}{8}$$

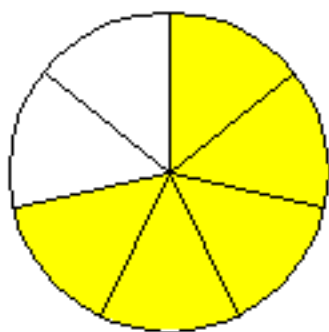
Why did the elephant cross the road?

Place each letter in the box with that pie's fraction.

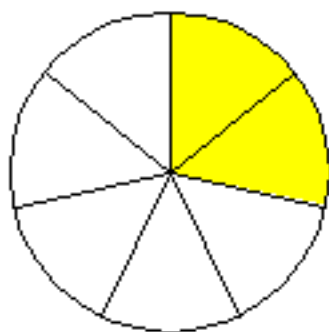
H



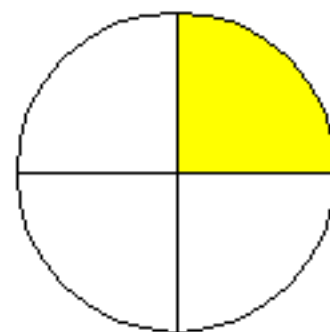
A



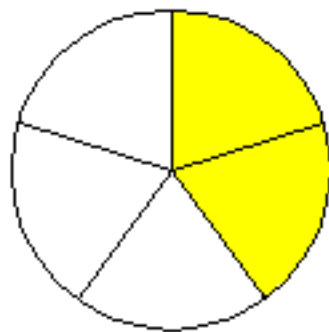
C



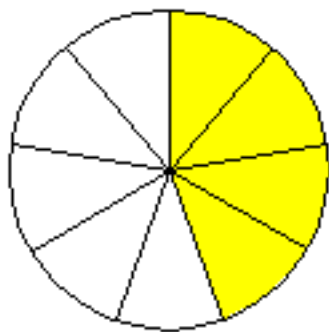
O



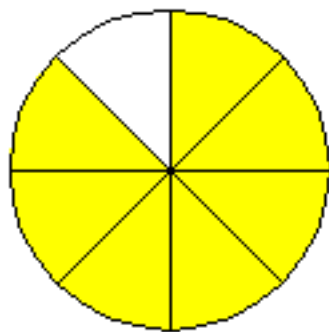
D



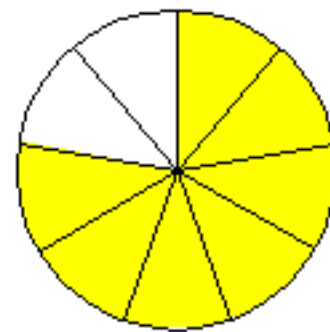
Y



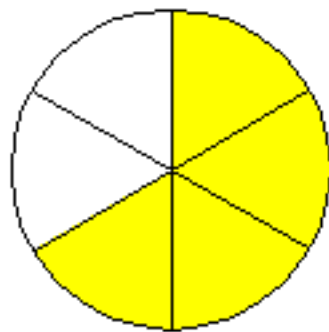
F



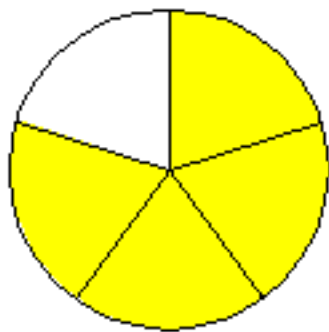
T



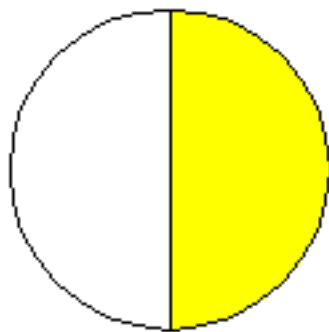
E



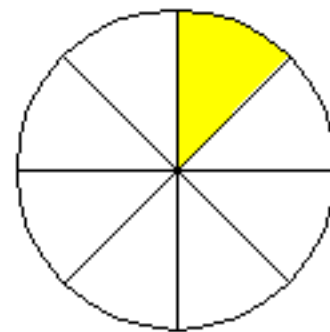
K



I



N

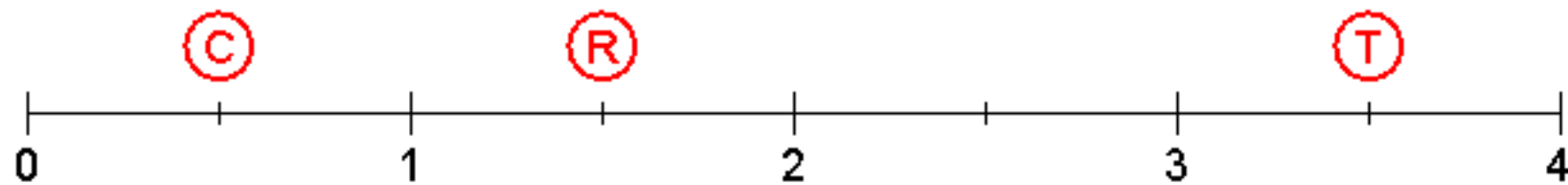
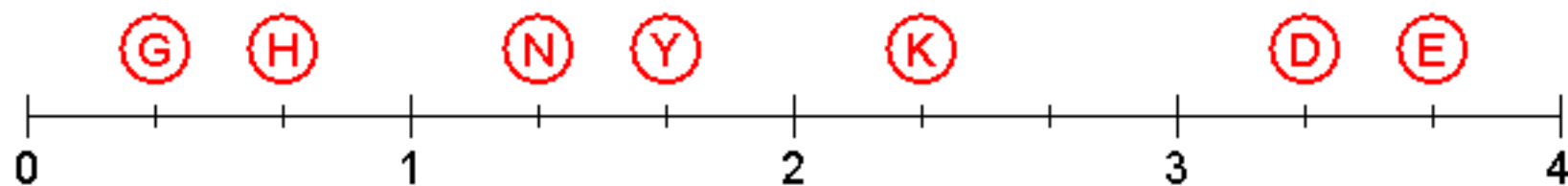


$3\frac{1}{2}$	$\frac{2}{3}$	$3\frac{2}{3}$	$1\frac{2}{3}$
$2\frac{1}{4}$	$1\frac{1}{4}$	$3\frac{1}{3}$	$3\frac{2}{3}$
$\frac{2}{3}$	$\frac{10}{4}$	$2\frac{1}{4}$	

$3\frac{1}{4}$	$1\frac{1}{2}$	$\frac{10}{4}$	$\frac{4}{3}$	$\frac{1}{3}$
$\frac{10}{4}$	$3\frac{1}{2}$			
$3\frac{1}{4}$	$1\frac{1}{4}$	$\frac{1}{2}$	$2\frac{1}{3}$	

What happened to the kid who ran away with the circus?

Place each letter in the box that shows its position on the line.



MAKE A NOISE
 1 2 3 4 2 5 6 7 8 4

LIKE A BANANA
 9 7 3 4 2 10 2 5 2 5 2

How do you catch a gorilla?

Match a problem with a solution and put the solution's letter in the riddle box with that problem's number.
 Round to nearest ten.

(1) 116	120		(A) 10
(2) 5	10		(M) 120
(3) 113	110		(S) 90
(4) 17	20		(E) 20
(5) 198	200		(K) 110
(6) 153	150		(L) 190
(7) 161	160		(O) 150
(8) 93	90		(B) 140
(9) 192	190		(N) 200
(10) 144	140		(I) 160

Equivalent Fractions

What is the new numerator?

(1) $\frac{7}{9} \times \frac{5}{5} = \frac{35}{45}$		(2) $\frac{1}{2} \times \frac{9}{9} = \frac{9}{18}$	
(3) $\frac{1}{4} \times \frac{7}{7} = \frac{7}{28}$		(4) $\frac{1}{3} \times \frac{3}{3} = \frac{3}{9}$	
(5) $\frac{3}{5} \times \frac{10}{10} = \frac{30}{50}$		(6) $\frac{2}{3} \times \frac{5}{5} = \frac{10}{15}$	
(7) $\frac{3}{4} \times \frac{10}{10} = \frac{30}{40}$		(8) $\frac{5}{9} \times \frac{6}{6} = \frac{30}{54}$	
(9) $\frac{2}{5} \times \frac{4}{4} = \frac{8}{20}$		(10) $\frac{3}{8} \times \frac{10}{10} = \frac{30}{80}$	

Adding Different Fractions

Add and make proper or reduce if necessary.

(1) $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$ $+$ $\frac{2}{3} \times \frac{2}{2} = \frac{4}{6}$ $\frac{7}{6} = 1 \frac{1}{6}$		(2) $\frac{3}{7} \times \frac{3}{3} = \frac{9}{21}$ $+$ $\frac{2}{3} \times \frac{7}{7} = \frac{14}{21}$ $\frac{23}{21} = 1 \frac{2}{21}$	
(3) $\frac{1}{2} \times \frac{9}{9} = \frac{9}{18}$ $+$ $\frac{8}{9} \times \frac{2}{2} = \frac{16}{18}$ $\frac{25}{18} = 1 \frac{7}{18}$		(4) $\frac{1}{4} \times \frac{5}{5} = \frac{5}{20}$ $+$ $\frac{2}{5} \times \frac{4}{4} = \frac{8}{20}$ $\frac{13}{20}$	
(5) $\frac{7}{8} \times \frac{5}{5} = \frac{35}{40}$ $+$ $\frac{3}{5} \times \frac{8}{8} = \frac{24}{40}$ $\frac{59}{40} = 1 \frac{19}{40}$		(6) $\frac{1}{4} \times \frac{5}{5} = \frac{5}{20}$ $+$ $\frac{4}{5} \times \frac{4}{4} = \frac{16}{20}$ $\frac{21}{20} = 1 \frac{1}{20}$	
(7) $\frac{1}{6} \times \frac{1}{1} = \frac{1}{6}$ $+$ $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$ $\frac{4}{6} = \frac{2}{3}$		(8) $\frac{2}{5} \times \frac{3}{3} = \frac{6}{15}$ $+$ $\frac{1}{3} \times \frac{5}{5} = \frac{5}{15}$ $\frac{11}{15}$	

Multiplying Simple Fractions

Multiply and make proper or reduce if necessary.

(1) $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$	
(2) $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$	
(3) $\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$	
(4) $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$	
(5) $\frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$	

Multiplying Decimals

Calculate:

$$(1) \begin{array}{r} 52 \\ \times .5 \\ \hline 26 \end{array} \quad \frac{5}{10} \times 52 =$$

$$\frac{5}{10} \times \frac{52}{1} = \frac{260}{10}$$

$$(2) \begin{array}{r} 33 \\ \times .8 \\ \hline 26.4 \end{array} \quad \frac{8}{10} \times 33 =$$

$$\frac{8}{10} \times \frac{33}{1} = \frac{264}{10}$$

$$(3) \begin{array}{r} .93 \\ \times 2 \\ \hline 1.86 \end{array} \quad 2 \times \frac{93}{100} =$$

$$\frac{2}{1} \times \frac{93}{100} = \frac{186}{100}$$

$$(4) \begin{array}{r} 92 \\ \times .03 \\ \hline 2.76 \end{array} \quad \frac{3}{100} \times 92 =$$

$$\frac{3}{100} \times \frac{92}{1} = \frac{276}{100}$$

$$(5) \begin{array}{r} 71 \\ \times .3 \\ \hline 21.3 \end{array} \quad \frac{3}{10} \times 71 =$$

$$\frac{3}{10} \times \frac{71}{1} = \frac{213}{10}$$

$$(6) \begin{array}{r} 64 \\ \times .6 \\ \hline 38.4 \end{array} \quad \frac{6}{10} \times 64 =$$

$$\frac{6}{10} \times \frac{64}{1} = \frac{384}{10}$$

$$(7) \begin{array}{r} 7.8 \\ \times .09 \\ \hline .702 \end{array} \quad \frac{9}{100} \times 7 \frac{8}{10} =$$

$$\frac{9}{100} \times \frac{78}{10} = \frac{702}{1,000}$$

$$(8) \begin{array}{r} .31 \\ \times .09 \\ \hline .0279 \end{array} \quad \frac{9}{100} \times \frac{31}{100} =$$

$$\frac{9}{100} \times \frac{31}{100} = \frac{279}{10,000}$$

$$(9) \begin{array}{r} 69 \\ \times .06 \\ \hline 4.14 \end{array} \quad \frac{6}{100} \times 69 =$$

$$\frac{6}{100} \times \frac{69}{1} = \frac{414}{100}$$

$$(10) \begin{array}{r} 89 \\ \times .8 \\ \hline 71.2 \end{array} \quad \frac{8}{10} \times 89 =$$

$$\frac{8}{10} \times \frac{89}{1} = \frac{712}{10}$$

Direct & Inverse Variation

(1) If you release 105 tagged fish into a lake and later collect a sample and find 15 tagged and 150 untagged, what is your estimate of the number of untagged fish?

$$\frac{15 \text{ tagged}}{150 \text{ untagged}} = \frac{105 \text{ tagged}}{X \text{ untagged}} \quad \frac{15 X}{15} = \frac{(105)(150)}{15}$$

$$X = 1050 \text{ untagged}$$

(2) The weight of a pipe varies with its length. If a 8 foot pipe weighs 48 lbs., how much will a 16 foot pipe weigh?

$$\frac{48 \text{ lbs.}}{8 \text{ ft.}} = \frac{X \text{ lbs.}}{16 \text{ ft.}} \quad \frac{8 X}{8} = \frac{(48)(16)}{8}$$

$$X = 96 \text{ lbs.}$$

(3) On a map, 10 miles equals 5 inches. If the map distance between two towns is 45 inches, how far apart are they?

$$\frac{10 \text{ miles}}{5 \text{ map in.}} = \frac{X \text{ miles}}{45 \text{ map in.}} \quad \frac{5 X}{5} = \frac{(10)(45)}{5}$$

$$X = 90 \text{ miles}$$

(4) The frequency of a radio wave is inversely proportional to its wavelength. If a 50 meter wavelength has a frequency of 6 megahertz (MHz), what is the frequency of a 30 meter wave?

$$L_1 f_1 = L_2 f_2$$

$$(50 \text{ m})(6 \text{ MHz}) = (30 \text{ m})(f_2 \text{ MHz})$$

$$\frac{(50)(6)}{30} = \frac{(30)(f_2)}{30}$$

$$10 = f_2$$

(5) For a fixed distance (d), speed (s) and time (t) vary inversely. A trip at 60 miles per hour took 210 hours. How long would it take you at 70 miles per hour?

$$r_1 t_1 = r_2 t_2$$

$$(60 \text{ mph})(210 \text{ hr}) = (70 \text{ mph})(t_2 \text{ hr})$$

$$\frac{(60)(210)}{70} = \frac{(70)(t_2)}{70}$$

$$180 = t_2$$

Dividing Decimals

Calculate:

$$(1) \begin{array}{r} 9 \overline{) 25.2} \\ \underline{25.2} \\ 0 \end{array} \quad \frac{25.2 \times 10}{.9 \times 10}$$

$$9 \overline{) 252.}$$

$$(2) \begin{array}{r} 3 \overline{) .096} \\ \underline{.096} \\ 0 \end{array} \quad \frac{.096 \times 10}{.3 \times 10}$$

$$3 \overline{) .96}$$

$$(3) \begin{array}{r} .01 \overline{) .91} \\ \underline{.91} \\ 0 \end{array} \quad \frac{.91 \times 100}{.01 \times 100}$$

$$1 \overline{) 91.}$$

$$(4) \begin{array}{r} .1 \overline{) .72} \\ \underline{.72} \\ 0 \end{array} \quad \frac{.72 \times 10}{.1 \times 10}$$

$$1 \overline{) 7.2}$$

$$(5) \begin{array}{r} .07 \overline{) .518} \\ \underline{.49} \\ .218 \\ \underline{.21} \\ .08 \end{array} \quad \frac{.518 \times 100}{.07 \times 100}$$

$$7 \overline{) 51.8}$$

$$(6) \begin{array}{r} .04 \overline{) .0284} \\ \underline{.0284} \\ 0 \end{array} \quad \frac{.0284 \times 100}{.04 \times 100}$$

$$4 \overline{) 2.84}$$

$$(7) \begin{array}{r} 3 \overline{) 29.1} \\ \underline{27} \\ 21 \\ \underline{21} \\ 0 \end{array} \quad \frac{29.1 \times 10}{.3 \times 10}$$

$$3 \overline{) 291.}$$

$$(8) \begin{array}{r} .09 \overline{) .081} \\ \underline{.081} \\ 0 \end{array} \quad \frac{.081 \times 100}{.09 \times 100}$$

$$9 \overline{) 8.1}$$

$$(9) 6 \times 4.3 = 25.8$$

$$6 \overline{) 25.8}$$

$$(10) .4 \times 4.5 = 1.8$$

$$4 \overline{) 1.8}$$

$$4 \overline{) 18.}$$

Percent Word Problems

Round people to wholes, money to nearest cent, other answers to nearest tenth:

(1) A \$83 sneaker was marked down 45 percent. What is its new price?

$$\frac{X \text{ part}}{83 \text{ whole}} = \frac{45 \text{ pct}}{100}$$

$$\frac{100 X}{100} = \frac{(83)(45)}{100}$$

$$X = 37.35$$

$$\$83 - \$37.35 = \$45.65$$

(2) You buy toys for \$30 and sell them at a 25% markup. What should be your sale price?

$$\frac{X \text{ part}}{30 \text{ whole}} = \frac{25 \text{ pct}}{100}$$

$$\frac{100 X}{100} = \frac{(30)(25)}{100}$$

$$X = 7.50$$

$$\$30 + \$7.50 = \$37.50$$

(3) 91 percent of what is 228?

$$\frac{228 \text{ part}}{X \text{ whole}} = \frac{91 \text{ pct}}{100}$$

$$\frac{91 X}{91} = \frac{(228)(100)}{91}$$

$$X = 250.5$$

(4) If the rainfall in your town was 82.1 inches last year and 83.7 inches this year, what was the percent increase?

$$\frac{83.7 - 82.1}{82.1} \text{ part} = \frac{X \text{ pct}}{100}$$

$$\frac{82.1 X}{82.1} = \frac{(1.6)(100)}{82.1}$$

$$X = 1.9\%$$

(5) If the population of your town went from 44,000 to 36,000, what was the percent decrease?

$$\frac{44,000 - 36,000}{44,000} \text{ part} = \frac{X \text{ pct}}{100}$$

$$\frac{44,000 X}{44,000} = \frac{(8,000)(100)}{44,000}$$

$$X = 18.2\%$$