

NAME _____

DATE _____

Lesson 3 Homework Practice

The Percent Proportion

$$\frac{\text{PART}}{\text{WHOLE}} = \frac{\text{PART}}{100}$$

PERCENT PROPORTION
 PART ← PART
 WHOLE ← WHOLE

①

$$\frac{13}{65} = \frac{x}{100}$$

% = x
 P = 13
 W = 65

$$13(100) = 65(x)$$

$$\frac{1300}{65} = \frac{65x}{65}$$

$$20 = x$$

20% of 65 is 13.
 13 is 20% of 65.

②

$$\frac{4}{50} = \frac{x}{100}$$

% = x
 P = 4
 W = 50

$$4(100) = 50x$$

$$\frac{400}{50} = \frac{50x}{50}$$

$$8 = x$$

4 is 8% of 50.
 8% of 50 is 4.

③

$$\frac{x}{22} = \frac{35}{100}$$

% = 35%
 P = x
 W = 22

$$22(35) = 100(x)$$

$$\frac{770}{100} = \frac{100x}{100}$$

$$7.7 = x$$

7.7 is 35% of 22

④

$$\frac{x}{81} = \frac{14}{100}$$

% = 14
 P = x
 W = 81

$$81(14) = 100(x)$$

$$\frac{1134}{100} = \frac{100x}{100}$$

$$11.34 = x$$

14% of 81 is 11.34

⑤

$$\frac{13}{x} = \frac{26}{100}$$

% = 26
 P = 13
 W = x

$$13(100) = 26(x)$$

$$\frac{1300}{26} = \frac{26x}{26}$$

$$50 = x$$

13 is 26% of 50

⑥

$$\frac{55}{x} = \frac{40}{100}$$

% = 40
 P = 55
 W = x

$$55(100) = 40(x)$$

$$\frac{5500}{40} = \frac{40x}{40}$$

$$137.5 = x$$

55 is 40% of 137.5

⑦

$$\% = x \quad \frac{72}{45} = \frac{x}{100}$$

$$P = 72$$

$$W = 45$$

$$72(100) = 45(x)$$

$$\frac{7200}{45} = \frac{45x}{45}$$

$$160 = x$$

72 is 160% of 45.

↑

LOGICAL THAT THIS IS MORE THAN 100% SINCE THE PART IS GREATER THAN THE WHOLE.

⑧ THE WHOLE = 100

⑨ THE WHOLE = 66

⑩ THE PART = 3

⑪ THE PERCENT = 0.3% (ROUNDED FROM 0.25%)

⑫ THE PART = 0.1 (ROUNDED FROM 0.08)

⑬ THE PART = 3.7 (ROUNDED FROM 3.66)

⑭ THE PERCENT = 100%

⑮ THE WHOLE = 125

16.

$$p\% = 10$$

P = 3 (AMOUNT IN WALLET)

W = X (MONTHLY ALLOWANCE)

$$\frac{3}{X} = \frac{10}{100}$$

$$3(100) = 10(X)$$

$$\frac{300}{10} = \frac{10X}{10}$$

$$30 = X$$

MALLORIE'S ALLOWANCE IS \$30 PER MONTH

18.

$$p\% = 18$$

$$P = X$$

W = 430 (TOTAL CAPACITY OF THE MEMORY CARD)

$$\frac{X}{430} = \frac{18}{100}$$

$$100X = 430(18)$$

$$\frac{100X}{100} = \frac{7740}{100}$$

$$X = 77.4$$

MELCHER TOOK ABOUT 78 PICTURES AT THE FAMILY REUNION.

19a.

$$p\% = X$$

P = 25 MILLION (INDIAN OCEAN)

W = 64 MILLION (PACIFIC OCEAN)

$$\frac{25}{64} = \frac{X}{100}$$

$$25(100) = 64X$$

$$\frac{2500}{64} = \frac{64X}{64}$$

$$39.0625 = X$$

THE AREA OF THE INDIAN OCEAN IS ABOUT 39% THE AREA OF THE PACIFIC OCEAN.

17.

$$p\% = X$$

P = 104 (GUESTS WHO ATTENDED)

W = 125 (TOTAL GUESTS INVITED) ← THE PART WHO SHOWED UP. ← THE WHOLE GUEST LIST.

$$\frac{104}{125} = \frac{X}{100}$$

$$104(100) = 125(X)$$

$$\frac{10400}{125} = \frac{125X}{125}$$

$$83.2 = X$$

83.2% OF THE GUESTS WHO WERE INVITED ATTENDED THE WEDDING.

(I HOPE THE REST AT LEAST SENT PRESENTS.)

19b.

$$p\% = 16$$

P = X (ARCTIC OCEAN)

W = 32 MILL. (ATLANTIC OCEAN)

$$\frac{X}{32} = \frac{16}{100}$$

$$100(X) = 32(16)$$

$$\frac{100X}{100} = \frac{512}{100}$$

$$X = 5.12 \text{ MILLION SQUARE MILES}$$

THE AREA OF THE ARCTIC OCEAN IS APPROXIMATELY 5 MILLION SQUARE MILES.