SOL HW 2.2

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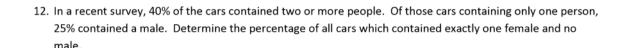|			
1a) 363/10000	b) 11/16	c) ¼	d) 5/8
e) -4/9	f) 2 and 97/110	g) 3/2	h) 17/24
i) 1/3	j) 1 and 25/33	k) 18 and 16/33	l) -7/440
m) 100,000,000	n) -49/30	o) -8321/59940	p) 1 and 19/20
2i) 51/5	ii) 4/9	3) 240	4) $76.95
5) $26500	6) 25%	7) Lost 4%	8) Increase 18%
9) x= 0.0021w	10) 227.8cm	11) 14%	12) 45%
13) 5/12	14) 15	15) R=24/5	16) 96.9km
17) He had 72 horses in the beginning		18) James has $240 and his dad has $1050	

Name:_____   Date:_____

Math 8/9H Section 2.2 Converting Fractions, Decimals and Percentages

1. Evaluate the following without a calculator and leave your answers as a mixed fraction in simplified form:

a) 0.33×0.11	b) $0.125 \div 0.1\overline{8}$	c) $0.375 \times 0.\overline{66}$	d) $0.8\overline{33} \times 0.75$
e) $0.\overline{166} \times 0.\overline{33} - 0.5$	f) $0.6 \div 0.\overline{2} + 0.1\overline{8}$	g) $1.25 \times 0.6 + 0.75$	h) $0.875 \div 0.\overline{63} - 0.\overline{66}$
i) $0.\overline{166} + 0.5 - 0.\overline{33}$	j) $2.875 \times 0.\overline{72} - 0.\overline{33}$	k) $0.\overline{33} \div 0.02 + 0.1\overline{8} \div 0.1$	l) $2.5 \times 0.03 - 0.\overline{45} \times 0.2$
m) $0.1 \div 0.01 \div 0.001 \div 0.0001$	n) $0.0\overline{66} \times 0.6 - 1.02$	o) $0.0\overline{833} \times 1.\overline{33} - 0.25$	P) $1.5 \times 0.1\overline{33} + 1.75$
Q) $35 \div 0.00014$	r) $128 \div 0.0004$	s) $3.43 \div 0.014$	t) $72.9 \div 0.003$

2. Simplify: i) $\dfrac{4}{3} \times 0.25 \div 2\dfrac{7}{5} \times \square = 1$ ii) $2\dfrac{6}{7} \times 1\dfrac{6}{15} \div 1\dfrac{7}{9} \times \square = 1$

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3. If $\dfrac{5}{6}$ of a number is 60, then what is $\dfrac{10}{3}$ of the original number?

4. A coat with an original price of $85.50 is reduced by 10%. What is the new selling price?

5. James earns $25,000 a year and Ed earns 6% more than James. What is the amount that Ed earns, in dollars?

6. In a class of 30 students, 40% wear glasses. Three of those wearing glasses are left-handed. Of those wearing glasses, what percent are left handed?

7. Mr. Jones sold two pipes at $1.20 each. Based on the cost, the profit on one was 20% and the loss on the other was 20%. One the sale of the pipes, how much did he gain or lose?

8. A book is on sale and is reduced by 15%. In order to restore the price to its original cost, what is the percentage by which the sale price must be increased?

9. If "x" is 3% of "y" and "y" is 7% of w, find "x" in terms of "w".

10. A ball bounces to 2/3 of the distance through which it falls. If the fourth rebound is 45cm, how high is the height, in cm, through which the ball originally dropped?

11. In a school, 30 boys and 20 girls entered a math competition. Certificates were awarded to 10% of the boys and 20% of the girls. Of the students who participated, what percentage received certificates?

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12. In a recent survey, 40% of the cars contained two or more people. Of those cars containing only one person, 25% contained a male. Determine the percentage of all cars which contained exactly one female and no male.

13. You are given one hour to complete a contest. What is the fraction of the hour remaining for you to complete the contest after thirty-five minutes have passed?

14. Twenty percent of a certain positive number "x" multiplied by 40% of the same number is equal to 18. What is the value of "x"?

15. The average of $\dfrac{1}{4}$ and $\dfrac{1}{6}$ is $\dfrac{1}{R}$. Determine the value of R.

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16. On a 340 km trip, Casey's father drove $33\frac{3}{3}\%$ of the distance. His mother drove $\frac{3}{8}$ of the total distance and Casey drove the remaining distance. How many kilometers did Casey drive?

17. A young ruler wanted to reward his servants by giving them his horses. First he gave 50% of his horses to his soldiers to train for battle. Next he gave 25% of his horses to the male servants and $\frac{1}{8}$ to the female servants. Afterwards, he gave $\frac{1}{12}$ of the horses to his favorite butler, $\frac{1}{36}$ to the city mayor, and then rode away on his horse to another town. How many horses did the young ruler have in the beginning?

18. James took 30% of his dad's money to go shopping. He spent $\frac{7}{15}$ of the money and bought a really nice pair of basketball shoes and then deposited the remaining amount in his bank. If James' dad now has $810 more than him, how much money does each person have?

19. Let x = 0.7181818181...., where the digits '18' repeat. When "x" is expressed as a fraction in lowest terms, the denominator will exceed the numerator by how much?

(a) 18   (b) 31   (c) 93   (d) 141   (e) 279

20. How many integers "n" will satisfy the inequality? $\dfrac{3}{7} < \dfrac{n}{14} < \dfrac{2}{3}$

(A) 0   (B) 2   (C) 3   (D) 4   (E) 5

An election was held for a joint grade 8/9 rep. Only grade 8 and grade 9 students could vote, and everyone voted for one of Alicia and Beti. Of the students who voted for Alicia, three-quarters were in grade 8. (Note that this does *not* mean that three-quarters of grade 8 students voted for Alicia.) Of the students who voted for Beti, four-fifths were in grade 9. An equal number of grade 8 and grade 9 students voted. What fraction of all the students voting voted for Alicia?

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