

Module 1. Math Review, Vocabulary, and Symbols

2.

<i>Fraction</i>	<i>Percentage</i>	<i>Decimal</i>
1/6	12.67%	.167
1/10	10%	.10
1/7	14.3%	.143

4.

<i>Fraction</i>	<i>Percentage</i>	<i>Decimal</i>
1/50	2%	.02
99/10,000	.99%	.0099
1/100	1%	.01

6.

- a. 77.94
- b. 1086.27
- c. 39.63

8.

- a. 110.00
- b. 12.64
- c. 276.77

10.

a. $4\sqrt{5^2}(3 \times 2) = (4)(5)(6) = 120$

b. $(4)(5 + 3 \times 2) = (4)(5 + 6) = (4)(11) = 44$

c. $\sqrt{4} \times 5 + (3 \times 2) = (2)(5) + 6 = 10 + 6 = 16$

d. $4^2(5 + 3 \times 2) = 16(5 + 6) = (16)(11) = 176$

e. $(4)(8)(2^2) = (32)(4) = 128$

12.

a. $\sqrt{5 \cdot 6 + 6 - 3^2} - 2 = 5$

b. $(4 + 7^2 - 17) / 6 = 6$

c. $6 - 2 \cdot 2 + 9 / 3 = 5$

d. $100 - 10 \cdot 5 - 5 = 45$

e. $\sqrt{(2-8) \cdot 16} - 2 = 6$

14.

a. $98 - (75)^{(1/3)} = 98 - 25 = 73$

b. $.672 + (2)^{(1/6)} = .672 + .333 = 1.005 = 1.00$

c. $(1/3) + (5)^{(1/4)} = 2.667 + 1.25 = 3.917 = 3.92$

16.

a. $.155 + 5/2 = .155 + (5) (1/2) = .155 + 2.5 = 2.655$

b. $3.28 - 3/2 = 3.28 - (3) (1/2) = 3.28 - 1.5 = 4.78$

c. $720/9 - 45 = (720) (1/9) - 45 = 80 - 45 = 35$

18.

- a. $b + 20 = .5 \rightarrow b = .5 - 20 \rightarrow b = -19.5$
- b. $F = 1.8C + 32 \rightarrow F - 32 = 1.8C \rightarrow (F - 32)/1.8 = C \dots \text{OR} \dots C = (F - 32)/1.8$
- c. $50 = 60/a \rightarrow 50a = 60 \rightarrow a = 60/50 \rightarrow a = 1.2$

20.

- a. $7 = .5b + 2.5 \rightarrow 14 = b + 5 \rightarrow b = 9$
- b. $64 = 4c \rightarrow c = 16$
- c. $3a = .25V \rightarrow a = (.25V)/3$

22.

- a. $\sum(1 + N) = N1 + (N)(N) = N + N^2$
- b. $\sum(2X + Y) = 2\sum X + \sum Y$
- c. $\sum(aX)^2 = \sum(a^2X^2) = Na^2\sum X^2$