UNIT 2 STUDY GUIDE

Determine if each statement is true or false.

1) $-1 \times -5 = -5$ F

2) $0 + 3 = 0$ F

3) $3 \times 0 = 0$ T

4) $-5 - 5 = 0$ F

5) $-2 - (-2) = 0$ T

6) $-2 + (-2) = 0$ F

7) $0 - 3 = 0$ F

8) $6 - (-6) = 0$ F

9) When is a negative number greater than a positive number?

Never

10) When is a positive number plus a negative number equal to a negative number?

When the absolute value of the neg. is greater than the positive.

11) When is subtracting a number equivalent to adding its opposite?

Always

12) When is the absolute value of a number equivalent to its opposite?

Only for negatives.

13) Give an example of the associative property of multiplication.

$(1 \cdot 2) \cdot 3 = 1 \cdot (2 \cdot 3)$

14) Give an example of the commutative property of multiplication.

$11 \cdot 2 = 2 \cdot 11$

15) Give an example of the distributive property.

$3(2 + 1/6) = 3 \cdot 2 + 3 \cdot 1/6$

16) Give an example of the identity property of addition.

$3 + 0 = 3$

17) Give an example of the identity property of multiplication.

$3 \cdot 1 = 3$

18) Give an example of the inverse property of addition.

$3 + (-3) = 0$

19) Give an example of the inverse property of multiplication.

$\frac{7}{8} \cdot \frac{8}{7} = 1$

20) Give an example of the associative property of addition.

$(7 + 8) + 1/2 = (8 + 1/2) + 7$

21) Give an example of the commutative property of addition.

$2+3=3+2$

22) Give an example of the identity property of addition.

$-6+0=-6$

Simplify

23) $|-25|$ → 25

24) $|5-10|$ → 5

25) $|6-3|$ → 3

26) $-|-5|$ → -5

27) $-|+5|$ → -5

28) $|-3+(-5)|$ → 8

29) $|-2-5|-|-3+(-5)|$

$|-7|-|-8|$

$7-8$

-1

30) $-|-6-5|+|5-6|$

$-|-11|+|-1|$

$-11+-1$ → -12

31) A mountain is 12,503 ft tall. A desert is 195 ft below sea level. What is the difference between the two elevations? $|12,503-(-195)|=$

$$\begin{array}{r} 12503 \\ +\ 195 \\ \hline 12698 \end{array}$$

12,698 ft

32) A bird is 78 ft above the sea. A fish is 5 ft below to sea. How far apart are they?

$|78--5|=$ 83 ft

33) A fish is 5 ft below sea level. Another fish is 67 ft below sea level. How far apart are the fish?

$|-5--67|=$ 62 ft

34) An airplane is 25,034 ft above sea level. A fish is 63 ft below sea level. What is the distance between the airplane and the fish?

$|25,034--63|$

$$\begin{array}{r} 25034 \\ +\ 63 \\ \hline 25097 \end{array}$$

25,097 ft

35) Write 92.39 as a simplified fraction.

$92\ 39/100$

36) Write -23.2935 as a simplified fraction.

$-23\ \frac{2935}{10,000} = -23\ \frac{587}{2,000}$

37) Write 92.002 as a simplified fraction.

$92\ 2/1000 =$ $92\ 1/500$

38. Write $.\overline{532}$ as a simplified fraction.

$\frac{532}{999}$

39. Write $.\overline{4}$ as a simplified fraction.

$4/9$

40. Write $.\overline{03}$ as a simplified fraction.

$3/99 = \frac{1}{33}$

41. Write $.0\overline{34}$ as a simplified fraction.

$\frac{34}{990} = \frac{17}{495}$

42. Write $2.32\overline{45}$ as a simplified fraction.

$2\frac{3213}{9900}$

$.32\overline{45} = x$

$3245.\overline{45} = 10{,}000x$

$-\ 32.\overline{45} = 100x$

$3213 = 9900x$

43. Annabelle has 2/3lbs of chocolate. If she ate ⅓ of it, how much does she have left?

$\frac{2}{3} \cdot \frac{2}{3} =$ 4/9 lb

44. Anna bell has a 2/3lb of chocolate. If she ate ⅙ lbs, how much does she have left?

$\frac{2}{3} - \frac{1}{6} = \frac{4}{6} - \frac{1}{6} = \frac{3}{6} =$ ½ lb

45. Annabelle has ⅔ lbs of chocolate. If she ate ⅓ of it, how much did she eat?

$\frac{2}{3} \cdot \frac{1}{3} = \frac{2}{9}$ lb

46). It normally takes Bob 5 ¼ hrs to mow the lawn. If it only took him ¾ of his normal time, how many minutes did it take him to mow the lawn?

$5\frac{1}{4} \cdot \frac{3}{4} \cdot 60 = \frac{21}{4} \cdot \frac{3}{4} \cdot \frac{60}{1}^{15} = \frac{63 \cdot 15}{4} = \frac{945}{4} = 236\frac{1}{4}$ min

47) What is two-fifths of 2 ½ hours in minutes?

$\frac{5}{2} \cdot \frac{2}{5} = 1$ hr $= 60$ min

48) 2.34 - 5

-2.66

49) 9.23 - 25

-15.77

50. $9\frac{1}{2} - 8\frac{3}{4}$

$3/4$

51) $27\frac{1}{3} - 5\frac{3}{4}$

$21\ 7/12$

52) $(-\frac{1}{2})(\frac{3}{4})$

$-3/8$

53) $1\frac{1}{2} \div -3\frac{3}{4}$

$-2/5$

54) $-2\frac{2}{3} \div -4\frac{1}{2}$

$16/27$

55) $25.2 \div .02$

$\frac{25.2 \cdot 100}{.02 \cdot 100} = \frac{2520}{2}$

1260

56) $86.23 \div .0005$

172,460

57) $-5\frac{1}{2}(3\frac{1}{3})$

$-18\ 1/3$

58) $-2\frac{1}{2}(-3\frac{3}{5})$

9

59) $83.2(.02)$

832×2

1664

1.664

60) $5.21(.0001)$

.0005.21