Student: yaser almohaws	**Instructor:** fahad aljabr	**Assignment:** Week 1 Practice
Date: 1/1/15	**Course:** MATH-001: Fundamentals of Math 11415	Exercises
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1. Substitute to find a value of the expression.

The area A of a triangle with base b and height h is given by $A = \frac{1}{2}bh$. Find the area when $b = 24$ m (meters) and $h = 36$ m.

The area is 432 m^2.

2. Evaluate.

$\frac{11p}{g}$ for $p = 32$ and $g = 8$

$\frac{11p}{g} =$ 44

(Simplify your answer.)

3. Evaluate.

$\frac{r - s}{5}$ for $r = 43$ and $s = 8$

$\frac{r - s}{5} =$ 7

(Simplify your answer.)

4. Translate to an algebraic expression.

5 less than q

The translation is $q - 5$.

5. Translate the following phrase to an algebraic expression.

x more than b

The translation is $b + x$.

6. Translate to an algebraic expression.

p subtracted from n

The translation is $n - p$.

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7. Translate to an algebraic expression.

One less than three times a number

The translation is $3x - 1$. (Type an expression using x as the variable.)

8. Translate to an algebraic expression.

40% of the women attending

Let n represent the number of women attending.

The expression is $0.4n$.
(Write the percent as a decimal.)

9. Translate the phrase to an algebraic expression.

Your salary after a 4% salary increase if your salary before the increase was s

The algebraic expression is $s + 0.04s$.
(Use integers or decimals for any numbers in the expression.)

10. Translate to an algebraic expression.

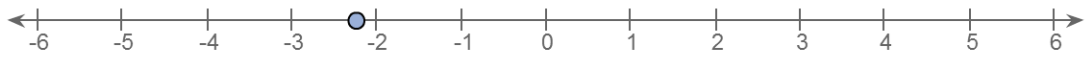
A driver drove at a speed of 41 mph for x hours. How far did the driver go?

The algebraic expression 41 mph at x hours is $d = 41x$ miles.

11. Graph the number on the number line.

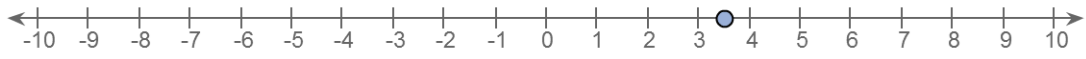
$-\frac{9}{4}$

Graph $-\frac{9}{4}$.



12. Graph 3.6 on the number line.

Graph 3.6.



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13. Find decimal notation for $-\frac{7}{8}$.

$-\frac{7}{8} = -0.875$

14. Write the fraction as a decimal.

$\frac{1}{3}$

Choose the correct answer below.

- 0.3
- $0.\overline{34}$
- ✔ $0.\overline{3}$
- $0.0\overline{3}$

15. Use either < or > to make this a true statement.

$-4 \square -9$

$-4 > -9$

16. Use either < or > to make this a true statement.

$-2 \square -18$

$-2 > -18$

17. Use either < or > for $\square$ to write a true statement.

$-7.46 \square -10.89$

$-7.46 > -10.89$

18. Write an inequality with the same meaning.

$-6 > t$

The inequality $-6 > t$ has the same meaning as $t < -6$.
(Type an inequality.)

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19. Write a second inequality with the same meaning.

$22 \leq s$

Write a second inequality with s by itself on left-hand side that has the same meaning.

$s \geq 22$ (Type an inequality.)

20. Write true or false.

$-2 \leq -4$

Choose the correct answer below.

- ○ True
- ✓ False

21. Simplify.

$|-42|$

$|-42| = 42$

22. Find the absolute value.

$\left|-\frac{4}{13}\right|$

The absolute value is $\frac{4}{13}$. (Type an integer or a simplified fraction.)

23. Find the absolute value.

$\left|\frac{0}{3}\right|$

The absolute value is 0. (Type an integer or a simplified fraction.)

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24. Evaluate.

$\frac{m+n}{9}$ for $m = 52$ and $n = 2$

$\frac{m+n}{9} = 6$

(Simplify your answer.)

25. Evaluate.

$\frac{12p}{g}$ for $p = 20$ and $g = 5$

$\frac{12p}{g} = 48$

(Simplify your answer.)

26. Add the following.

$-21 + (-42)$

$-21 + (-42) = -63$

27. Add the following.

$-7 + 7$

$-7 + 7 = 0$

28. Add the following.

$86 + (-97)$

$86 + (-97) = -11$

29. Add. Do not use a number line except as a check.

$-5.3 + 9.8$

$-5.3 + 9.8 = 4.5$ (Type an integer or a decimal.)

30. Add the following. Do not use a number line except as a check.

$-\frac{4}{9} + \frac{1}{9}$

$-\frac{4}{9} + \frac{1}{9} = -\frac{1}{3}$

(Simplify your answer. Type an integer or a fraction.)

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31. Add the following. Do not use a number line except as a check.

$-\frac{6}{7}+\left(-\frac{1}{7}\right)$

$-\frac{6}{7}+\left(-\frac{1}{7}\right)=-1$

(Simplify your answer. Type an integer or a fraction.)

32. Add. Do not use a number line except as a check.

$-\frac{1}{12}+\frac{5}{6}$

$-\frac{1}{12}+\frac{5}{6}=\frac{3}{4}$

(Simplify your answer. Type an integer or a fraction.)

33. Add the following. Do not use a number line except as a check.

$-\frac{1}{2}+\left(-\frac{3}{5}\right)$

$-\frac{1}{2}+\left(-\frac{3}{5}\right)=-1.1$

(Simplify your answer. Type an integer or a fraction.)

34. Add. Do not use a number line except as a check.

$-\frac{5}{8}+\frac{1}{4}$

$-\frac{5}{8}+\frac{1}{4}=-\frac{3}{8}$

(Simplify your answer. Type an integer or a fraction.)

35. Add.

$-41+\left(-\frac{5}{12}\right)+62+\left(-\frac{7}{12}\right)$

$-41+\left(-\frac{5}{12}\right)+62+\left(-\frac{7}{12}\right)=20$

(Simplify your answer. Type an integer or a fraction.)

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36. Add.

$89+(-17)+410+(-144)+78+(-985)$

The answer is -569.

37. Find $-x$ when $x=36$.

The answer is $-x=-36$.

38. Find $-x$ when $x=-\frac{5}{87}$.

$-x=\frac{5}{87}$

(Simplify your answer. Type an integer or a fraction.)

39. Find $-(-x)$ when $x=43$.

The answer is $-(-x)=43$.

40. Find $-(-x)$ when $x=\frac{100}{11}$.

The answer is $-(-x)=\frac{100}{11}$.

(Simplify your answer. Type an integer or a fraction.)

41. Subtract the following.

$-10-(-9)$

$-10-(-9)=-1$

42. Subtract the following.

$5-(-7)$

$5-(-7)=12$

43. Subtract the following.

$-9-(-4)$

$-9-(-4)=-5$

44. Subtract.

$-2-7$

$-2-7=-9$

(Simplify your answer. Type an integer.)

45. Subtract.

$0-(-1)$

$0-(-1)=1$

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46. Subtract the following.

$3-(-7)$

$3-(-7)=$ 10

47. Subtract the following.

$-15-(-15)$

$-15-(-15)=$ 0

48. Subtract.

$-\frac{2}{5}-\frac{3}{2}$

$-\frac{2}{5}-\frac{3}{2}=-\frac{19}{10}$

(Simplify your answer. Type an integer or a fraction.)

49. Subtract.

$7-16.53$

$7-16.53=$ -9.53

50. Subtract.

$-\frac{9}{26}-\left(-\frac{5}{13}\right)$

$-\frac{9}{26}-\left(-\frac{5}{13}\right)=\frac{1}{26}$ (Type an integer or a simplified fraction.)

51. Subtract.

$\frac{5}{9}-\frac{6}{7}$

$\frac{5}{9}-\frac{6}{7}=-\frac{19}{63}$

(Simplify your answer. Type a fraction.)

52. Simplify.

$-31+(-30)-(-15)-16$

The correct answer is -62.

53. Simplify the following.

$-93-(-84)-43-(-58)$

$-93-(-84)-43-(-58)=6$

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54. Multiply.

$$-\frac{2}{17}\cdot\frac{1}{2}\cdot\left(-\frac{34}{19}\right)$$

$-\frac{2}{17}\cdot\frac{1}{2}\cdot\left(-\frac{34}{19}\right)=\frac{2}{19}$

(Simplify your answer. Type an integer or a fraction.)

55. Multiply.

$3\cdot(-2)\cdot(-4)\cdot(-2)$

$3\cdot(-2)\cdot(-4)\cdot(-2)=-48$

56. Multiply.

$0.08\cdot(-3)\cdot 17\cdot(-10)$

$0.08\cdot(-3)\cdot 17\cdot(-10)=40.8$

57. Multiply.

$(-6)(-4)(-6)(-6)(-3)$

$(-6)(-4)(-6)(-6)(-3)=-2592$

58. Evaluate $(-6y)^2$ and $-6y^2$ when $y=5$.

$(-6y)^2=900$

$-6y^2=-150$

59. Evaluate $4y^2$ when $y=3$ and when $y=-3$.

When $y=3$, $4y^2=36$.

When $y=-3$, $4y^2=36$.

60. After diving 85 m below the sea level, a diver rises at a rate of 6 meters per minute for 10 min. Where is the diver in relation to the surface?

The answer is -25 m.

61. Evaluate.

$\frac{x-y}{10}$ for $x=31$ and $y=1$

$\frac{x-y}{10}=3$

(Simplify your answer.)

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62. Divide.

$$\frac{3}{4} \div \left(-\frac{1}{3}\right)$$

$\frac{3}{4} \div \left(-\frac{1}{3}\right) = -\frac{9}{4}$ (Type an integer or an improper fraction.)

63. Divide, if possible.

$$-\frac{6}{19} \div \left(-\frac{7}{19}\right)$$

Select the correct choice below and fill in any answer boxes in your choice.

A. $-\frac{6}{19} \div \left(-\frac{7}{19}\right) = \frac{6}{7}$
(Simplify your answer. Type an integer or a fraction.)

B. The answer is undefined.

64. Divide.

$$-\frac{5}{11} \div \left(-\frac{3}{4}\right)$$

$-\frac{5}{11} \div \left(-\frac{3}{4}\right) = \frac{20}{33}$ (Type an integer or a fraction.)

65. Divide, if possible.

$$\frac{-17}{-13}$$

Select the correct choice below and fill in any answer boxes in your choice.

A. $\frac{-17}{-13} = \frac{17}{13}$
(Simplify your answer. Type an integer or a fraction.)

B. The answer is undefined.

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66. Divide, if possible.

$-6.9 \div 6.9$

Select the correct choice below and fill in any answer boxes in your choice.

A. $-6.9 \div 6.9 = -1$
(Simplify your answer. Type an integer or a decimal.)

B. The answer is undefined.

67. Divide, if possible.

$$\frac{-10}{2-2}$$

Select the correct choice below and fill in any answer boxes in your choice.

A. $\frac{-10}{2-2} =$ ☐
(Simplify your answer. Type an integer or a fraction.)

B. The answer is undefined.

68. Multiply.

$14(a+2+7b)$

$14(a+2+7b) = 14A+28+98B$

69. Multiply.

$$\frac{6}{7}(b-42)$$

$$\frac{6}{7}(b-42) = \frac{6}{7}B-36$$

70. Multiply.

$-2(-5m-4n+3)$

$-2(-5m-4n+3) = 10M+8N-6$

71. Use the distributive law to write an equivalent expression.

$-9(r-3s-6t)$

$-9(r-3s-6t) = -9R+27S+54T$
(Simplify your answer. Do not factor.)

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72. Factor out a factor with a negative coefficient.

$-8x+72$

$-8x+72=$ $-8(X-9)$

(Factor completely.)

73. Use the distributive law to factor the following. Check by multiplying.

$4x+32+24y$

$4x+32+24y=$ $4(X+8+6Y)$

(Factor completely.)

74. Factor. Check by multiplying.

$qu+qv-qw$

$qu+qv-qw=$ $Q(U+V-W)$ (Type your answer in factored form.)

75. Factor. Check by multiplying.

$\frac{7}{6}x-\frac{11}{6}y+\frac{1}{6}$

$\frac{7}{6}x-\frac{11}{6}y+\frac{1}{6}=\frac{1}{6}($ 7 $x-$ 11 $y+1)$

76. Collect like terms.

$13r^2+5s+5r^2$

$13r^2+5s+5r^2=$ $5S+18R^2$

77. Collect like terms.

$-19+12y+13q-3y-4q-11$

$-19+12y+13q-3y-4q-11$
$=$ $-30+9Y+9Q$

78. Collect like terms.

$17m+3n+8m+3n$

$17m+3n+8m+3n=$ $25M+6N$

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79. Collect like terms.

$$\frac{17}{3}a+\frac{11}{5}b-\frac{3}{4}a-\frac{7}{10}b-45$$

$\frac{17}{3}a+\frac{11}{5}b-\frac{3}{4}a-\frac{7}{10}b-45=\frac{59}{12}a+\frac{3}{2}b-45$

(Simplify your answer. Use integers or fractions for any numbers in the expression.)

80. Remove parentheses and simplify.

$4u+7v-9(4u-3v+6w)$

$4u+7v-9(4u-3v+6w)=-32u+34v-54w$

81. Remove parentheses and simplify.

$(8u-9v+6w)-4(-8u+7v-8w)$

$(8u-9v+6w)-4(-8u+7v-8w)=40u-37v+38w$

(Type the terms of your expression in the same order as they appear in the original expression.)

82. Simplify.

$[5(7-3)-9]-[7-(9-7)]$

$[5(7-3)-9]-[7-(9-7)]=6$

83. Simplify.

$[8(q+5)-16]+[3(q-2)+3]$

$[8(q+5)-16]+[3(q-2)+3]=11q+21$ (Simplify your answer.)

84. Simplify.

$9\{[5(z-4)+19]-[3(3z-3)+4]\}$

$9\{[5(z-4)+19]-[3(3z-3)+4]\}=-36z+36$

(Simplify your answer.)

85. Simplify.

$(17-4\cdot 3)-15$

$(17-4\cdot 3)-15=-10$

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86. Simplify.

$$[72 \div (-9)] \div \left(-\frac{1}{7}\right)$$

$$[72 \div (-9)] \div \left(-\frac{1}{7}\right) = 56$$

87. Simplify.

$$2^2 + 16 \cdot (49) - (13 + 5 \cdot 1)$$

$$2^2 + 16 \cdot (49) - (13 + 5 \cdot 1) = 770$$

88. Simplify.

$$8 \cdot 9 - 3 \cdot 3 + 3$$

The answer is 66.

89. Simplify.

$$13 - 2(-3) + 7$$

$13 - 2(-3) + 7 = 26$

90. Simplify.

$$20 - 13^3$$

$20 - 13^3 = -2177$

91. Simplify.

$$2[45 - (-88 - 1)]$$

$2[45 - (-88 - 1)] = 268$

92. Simplify.

$$64 \div (-8) \div (-2)$$

$64 \div (-8) \div (-2) = 4$

93. Simplify.

$$\frac{10 - 6^2}{10^2 + 7^2}$$

$\frac{10 - 6^2}{10^2 + 7^2} = \frac{-26}{149}$

(Simplify your answer, if possible.)

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94. Simplify.

$$\frac{20(10-2)-4(7-2)}{10(2-6)-2(9+2)}$$

$$\frac{20(10-2)-4(7-2)}{10(2-6)-2(9+2)} = \frac{70}{-31}$$

(Simplify your answer.)

95. Simplify.

$$\frac{4^3-7|8-9|}{8(3-9)-4\div 2}$$

$$\frac{4^3-7|8-9|}{8(3-9)-4\div 2} = \frac{57}{-50}$$

(Simplify your answer. Type an integer or a fraction.)