Name _____

Write an integer to represent each description.

A	1)	2 units to the right on a number line.	+ 2
A	2)	A loss of $31,907 on an investment.	− 31,907
A	3)	The stock market went up 299 points today.	+ 299
A	4)	6° below zero.	− 6
A	5)	11 units to the left of 12 on the number line.	− 11 / if you go the −11 from 12, you end up at 1

Put the integers in order from least to greatest.

A	6)	49, -22, 45, -14, -13, -35, 34, -5, -6	−35, −22, −14, −13, −6, −5, 34, 45, 49
B	7)	-7, 3.5, -3.4, -3.5, -8, $-2\frac{1}{2}$, .35	−8, −7, −3.5, −3.4, −2$\frac{1}{2}$, .35, 3.5

Unit 1 Take Home and Check   Name _____

Solve. [A] Evens [B] all

8) 38 + (-6) ÷ 18

9) 32 – 29 - 29 - 43 – (-18)

10) (-1) ÷ (-47)

11) -40 ÷ (-8)

12) (-11)(30)

13) -15 + (-9)

14) -49 + (-43) + (-70)

15) (-4)(11)

16) -48 – 19.9

17) -13.6 + 4

18) 12.2 – 9 – (-15)

[A] 19) 72 ÷ 0

20) -12(-8)

[A] 21) $\dfrac{-9}{0}$

22) $\dfrac{-54}{3}$

23) (-3)(-2)(5)(-8)(1)

24) 46- (-8)

25) 3(-18)

26) $|-3|-|-2|$

27) $\dfrac{-16}{-4}$

8) 50

9) -51

10) - 48

11) 5

12) - 330

13) - 24

14) - 162

15) -44

16) - 67.9

17) - 9.6

18) 18.2

19) undefined; cannot ÷ by 0

20) 96

21) undefined; cannot ÷ by 0

22) -18

23) - 240

24) 54

25) - 54

26) $|-3| - |-2)$
       3 - 2 = 1

27) 4

Unit 1 Take Home and Check   Name _____

Write <, > or =

A

28)   20 ____ -10

28) $20 \boxed{\geq} -10$

29)   -40 − 40 ____ -20 − 38

29) $-80 \boxed{<} -58$

C

30) $|-32 - (-26)|$ ____ $|-31 + 41|$

$|-32 + 26|$ ___ $|1 \cdot 0|$
$|-6|$ ___ $|10|$
$6 \boxed{<} 10$

31) $|5|$ ____ $|-5|$

$5 \boxed{=} 5$

32) $|-5 + 3|$ ____ $|7 - (-42)|$

$|-2|$ ___ $|49|$
$2 \boxed{<} 49$

Fill in this equation with your own negative and positive numbers.

Answers may vary
$-19 - 5 + 8 - (-2) = -14$

C

33)   neg # − pos # + pos # − neg # = -14

Show an addition or subtraction equation and then solve.

$34 + 25 = \boxed{range = 59}$

A

34) Certain mites that live in the arctic thrive at an average temperature of -34° C. They also do well at temperatures of up to 25°C. What is the temperature range acceptable to these arctic mites?

B

35) In golf, the average score a good player should be able to achieve is called "par." Par for a whole course is calculated by adding up the par scores for each hole. Scores in golf are often expressed at some number either greater than or less than par. Mrs. Musto is having a pretty good day at the Medfield Town Golf Club. Her score so far after 15 holes is -3. If par for 15 holes is 65, what is her score?

35) $65 - 3 = \boxed{62}$

B

36) My daughter started the week with $75 in her bank account. On Monday, she bought gas for $23, on Wednesday she deposited her pay check for $68, on Thursday she bought a new sweater for $49 and on Friday she went out for dinner and spent $19 from her account. How much money is left in her acct ?

$$75 - 23 + 68 - 49 - 19 =$$
$$52 + 68 - 49 - 19 =$$
$$120 - 49 - 19 =$$
$$71 - 19 =$$
$$\boxed{\$\,52}$$

A	**Tell the absolute value of:**

37) $|-5|$

38) $|56|$

39) $|0|$

40) $|-1|$

37) 5

38) 56

39) 0

40) 1

A	**Tell the opposite of:**

41) 9

42) -6

43) -15

44) 0

45) Show the set of natural numbers.

46) Show the set of whole numbers

47) Show the set of integers.

48) Plot the following integers on a number line: -8 and 5.

49) Plot the following integers on a number line: -63, -65.
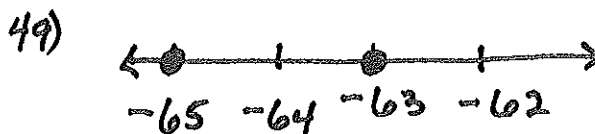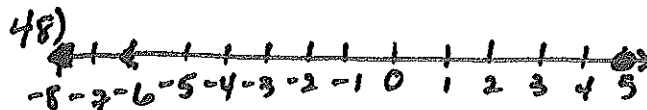
41) -9

42) 6

43) 15

44) 0

45) $1, 2, 3, \ldots$

46) $0, 1, 2, 3, \ldots$

47) $\ldots, -3, -2, -1, 0, 1, 2, 3, \ldots$

48)

49)

C Place an addition or subtraction symbol in each space so that the expression on the left equals the expression on the right.

50) 3 ____ -3 = 5 ____ 1

51) -7 ____ 3 = -2 ____ -2

52) -15 ____ -2 = 20 ____ -37

53) -9 ____ -3 ____ -10 =

12 ____ -8

54) -3 ____ 8 ____ -4 =

7 ____ 1 ____ 3

50) $3 - (3) = 5 + 1$

51) $-7 + 3 = -2 + -2$

52) $-15 + (-2) = 20 + (-37)$

53) $-9 - (-3) - (-10) = 12 + (-8)$

54) $-3 + 8 - (-4) = 7 - 1 + 3$

B Evaluate each expression. Use the values p = 4, n = 6, and s = 2

55) $\frac{n}{2}$

56) 7n

57) -6.1p

58) 8s – 6

59) 5 – s

60) 1.5 (p + n)

55) $\frac{6}{2} = \boxed{3}$

56) $(7)(6) = \boxed{42}$

57) $(-6.1)(4) = \boxed{-24.4}$

58) $(8)(2) - 6 = 16 - 6 = \boxed{10}$

59) $5 - 2 = \boxed{3}$

60) $1.5 (4 + 6) =$
$1.5 (10) = \boxed{15}$

Solve and show all the steps.

| A |

61) $9 + 6 \times (8 - 5)$

$$9 + 6 \times (8 - 5)$$

61)
$$9 + 6 \times 3$$
$$9 + 18 = \boxed{27}$$

| A |

62) $4 + 4 - 24 \div 24$

62) $4 + 4 - 24 \div 24$
$$4 + 4 - 1$$
$$8 - 1 = \boxed{7}$$

| A |

63) $5 \times 7 - 6 \div 2 + 3$

63) $5 \times 7 - 6 \div 2 + 3$
$$35 - 6 \div 2 + 3$$
$$35 - 3 + 3$$
$$32 + 3$$
$$\boxed{35}$$

| B |

64) $(14 - 5) \div (9 - 6)$

64) $(14 - 5) \div (9 - 6)$
$$9 \div 3$$
$$\boxed{3}$$

B	**65)** $5^2 - 4 \cdot 3 \div 12$

65) $5^2 - 4 \cdot 3 \div 12$
$25 - 12 \div 12$
$25 - 1$
$\boxed{24}$

B	**66)** $10 + 3^2 + (4-2) \cdot 5$

66) $10 + 3^2 + (4-2) \cdot 5$
$10 + 9 + 2 \cdot 5$
$10 + 9 + 10$
$19 + 10$
$\boxed{29}$

C	**67)** $5 \times 8 + 6 \div 6 - 12 \times 2$

67) $5 \times 8 + 6 \div 6 - 12 \times 2$
$40 + 6 \div 6 - 12 \times 2$
$40 + 1 - 12 \times 2$
$40 + 1 - 24$
$41 - 24$
$\boxed{17}$

C	**68)** $\frac{36 - 3 \times 4}{15 - 9 \div 3}$

68) $\frac{36 - 3 \times 4}{15 - 9 \div 3} =$

$\frac{36 - 12}{15 - 3} =$

$\frac{24}{12} =$

$\boxed{2}$

| C | **69)** $(8 \times 2) - 3^2 + (5 \times 2)$ |

69) $(8 \times 2) - 3^2 + (5 \times 2)$
$16 - 9 + (5 \times 2)$
$16 - 9 + 10$
$7 + 10 = \boxed{17}$

| A, B | **Find the square root. No calculator.**

70) $\sqrt{256}$

71) $\sqrt{100}$ |

70) $\sqrt{256} = \boxed{16}$

71) $\sqrt{100} = \boxed{10}$

| A, B | **Find the square root. You may use a calculator.**

72) $\sqrt{586}$

73) $\sqrt{1024}$ |

72) $\sqrt{586} \approx 24.21$

73) $\sqrt{1024} = 32$

| A, B | 74) $6 \div 0 =$ | *undefined* |

A, B
Whole section: 75 - 79

Place a check in the circle of the set or sets to which the number belongs.

75)

○ Natural
○ Whole
○ Integer
−6   ○ Rational
○ Irrational
○ Real

integer
rational
real

---

76)

○ Natural
○ Whole
○ Integer
0   ○ Rational
○ Irrational
○ Real

whole
integer
rational
real

---

77)

○ Natural
○ Whole
○ Integer
0.222... ○ Rational
○ Irrational
○ Real

rational
real

---

78)

○ Natural
○ Whole
○ Integer
$\sqrt{3}$ ○ Rational
○ Irrational
○ Real

irrational
real

'9)

$\frac{2}{5}$

- ◯ Natural
- ◯ Whole
- ◯ Integer
- ◯ Rational
- ◯ Irrational
- ◯ Real

Rational, Real

Show your formula and substitutions to solve:

A, B

80) An airplane flies 3360 km in 4 hours. What is its average speed in kilometers per hour?

$$D = rt$$

$$3360 = r \cdot 4$$

$$\begin{array}{r} 840 \\ 4\overline{)3360} \\ -32 \\ \hline 16 \\ -16 \\ \hline 0 \end{array}$$

$$\boxed{840 \text{ Km/hr}}$$

B

81) An airplane flies with a constant speed of 600 km/h. How far can it travel in 240 minutes?

$$D = rt \qquad 240 \text{ min} = 4 \text{ hrs}$$

$$D = 600 \cdot 4$$

$$\boxed{D = 2400 \text{ Km}}$$

A, B

82) A car drives with a constant speed of 56 km/h. How long will it take to travel a distance of 224 kilometers?

$$D = rt$$

$$224 = 56t$$

$$\begin{array}{r} 4 \\ 56\overline{)224} \\ -224 \\ \hline 0 \end{array}$$

$$\boxed{t = 4 \text{ hrs}}$$