REVIEW FOR MATH 0306 FINAL EXAM

Section 1.1

1) Which of the following statements represents 64,568,009? 1) _____

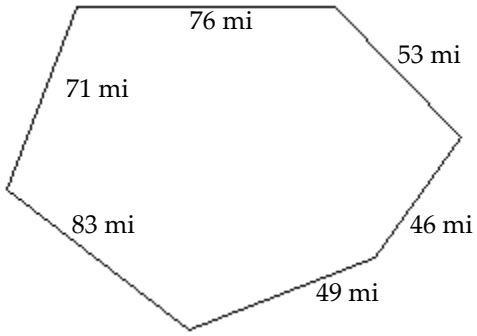
A) Sixty million, forty–five thousand, sixty–eight hundred and nine
B) Sixty–four million, five hundred thousand, sixty–eight hundred, nine
C) Sixty–four million, five hundred sixty–eight thousand, nine
D) Sixty–million, five thousand sixty–eight hundred, nine

2) Write the expanded notation for 2040. 2) _____

Section 1.2

3) Add: 23,782 3) _____
+ 63,834

4) Find the perimeter of the following polygon. 4) _____



Section 1.3

5) Subtract: 55,235 5) _____
– 36,983

Section 1.5

6) Multiply: 296 × 830 6) _____

7) Estimate by first rounding to the nearest hundred: 138 × 434 7) _____

8) A homeowner is planning a vegetable garden and needs to know the area to determine how much compost to add. The dimensions of the garden are 8 ft. by 16 ft. What is the area of the garden? 8) _____

Section 1.6

9) Divide: 4219 ÷ 63 9) _____

Section 1.8

10) The height of the tallest building in the town of Magnolia is 1397 feet. It is 186 feet taller than the second tallest building. What is the height of the second tallest building in Magnolia? 10) _____

11) Mark's typing speed is 65 words per minute. How many words can he type in 28 minutes? 11) _____

12) A spreadsheet contains 714 entries in a rectangular array which has 34 rows. How many entries are in each row? 12) _____

Section 1.9

13) Simplify: $4^2 \times 3^3 \times 10^2$ 13) _____

14) $8 \times 5 + \{15 \div [8 - (3 + 2)]\}$ 14) _____

Section 2.1

15) Use an integer to express the number: In one state, the lowest point is 84 feet below sea level. 15) _____

16) Find $-(-x)$ when x is -69. 16) _____

17) Find $-|-x|$ when **x** is 45. 17) _____

18) Which of the following is a **true** statement? 18) _____

A) $-15 \leq 3$ B) $830 > |-831|$ C) $-(-9) < 9$ D) $-28 \geq -25$

Section 2.2

19) Add: $3 + (-4) + 7 + (-17) + 5 + (-18)$ 19) _____

Section 2.3

20) Subtract: $-11 - (-4)$ 20) _____

21) Simplify: $13 - 0 - (-9) - 4 + (-19)$ 21) _____

22) The stock market gained 47 points on Tuesday and lost 58 points on Wednesday. It had closed on Monday at 2671 points. Where did the market close on Wednesday? 22) _____

Section 2.4

23) Multiply: $10 \cdot (-6) \cdot 12 \cdot (-6)$ 23) _____

24) Simplify: $(-1)^{33}$ 24) _____

25) -2^6 25) _____

Section 2.5

26) Divide: $-424 \div 53$ 26) _____

27) Simplify the following expression: $1000 + 100 \div 5^2 \times (14 - 11)^3$ 27) _____

28) Simplify: $\dfrac{81 - 6^2}{(-3)^2 - 2^2}$ 28) _____

Section 2.6

29) Evaluate $90 - \dfrac{5p}{q}$ for $p = 63$ and $q = 9$ 29) _____

30) Evaluate: $(-3x)^2$ for $x = 2$ 30) _____

31) For the given expression, write two equal expressions with negative signs in different places: $-\dfrac{16}{b}$ 31) _____

32) Evaluate x^3, for $x = 5$ and $x = -5$. 32) _____

33) Simplify: $4(2m + 3) - 7(5m - 2)$ 33) _____

Section 2.7

34) Combine like terms: $17x - 9y + 14 - 11x - 9 - 3y$ 34) _____

35) Find the perimeter of a square room with side 7 ft. 35) _____

Section 2.8

36) Solve for x: $9r + 6 = 96$ 36) _____

Section 3.1

37) Determine whether the first number is divisible by the second number: 252; 12 37) _____

38) Determine whether the number is divisible by 2, 3, 5, 6, 9, and / or 10: 18,834 38) _____

Section 3.2

39) Find all the factors of the number: 56 39) _____

40) Determine whether the number is prime, composite, or neither: 73 40) _____

41) Find the prime factorization of 198. 41) _____

Section 3.3

42) A baseball team has played 7 games so far this season. The team won 3 games. What is the ratio of games lost to games won? 42) _____

43) Simplify, if possible: $\frac{0}{6}$ 43) _____

44) Simplify, if possible: $\frac{2}{0}$ 44) _____

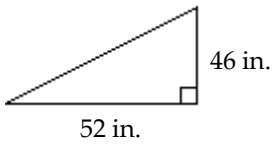
Section 3.5

45) Reduce to lowest terms: $\frac{75}{105}$ 45) _____

Section 3.6

46) Multiply and simplify: $\frac{-14}{24} \cdot \frac{4}{2}$ 46) _____

47) Find the area. 47) _____



Section 3.7

48) Divide and simplify: $\left(-\frac{15}{2}\right) \div \left(-\frac{20}{9}\right)$ 48) _____

Section 4.1

49) Find the least common multiple of 15, 20, and 30. 49) _____

Section 4.2

50) Add and simplify the following expression: $\frac{5}{6} + \frac{8}{15} + \frac{-3}{8}$ 50) _____

Section 4.6

51) Add and reduce your answer to lowest terms: $2\frac{1}{10} + 5\frac{3}{10}$ 51) _____

52) Subtract and reduce your answer to lowest terms: $38\frac{2}{15} - 21\frac{5}{6}$ 52) _____

Section 4.7

53) Multiply and reduce your answer to lowest terms: $4\frac{1}{2} \times 3\frac{5}{9}$ 53) _____

54) Divide and reduce your answer to lowest terms: $3\frac{3}{4} \div 2\frac{1}{7}$ 54) _____

Section 5.1

55) Write the decimal notation for $\frac{68}{100{,}000}$. 55) _____

Section 5.2

56) Add: 105.3 + 0.63 + 57.64 + 55 + 5.6 56) _____

57) Subtract: 3785.33 – 5.769 57) _____

Section 5.3

58) Multiply: 0.523×3.1 58) _____

Section 5.4

59) Divide: $736.56 \div 18.6$ 59) _____

Section 5.6

60) Estimate by rounding to the nearest one: 0.06 + 92 + 0.73 60) _____

61) An advertisement states that television sets are on sale at B&G Electronics. The prices are: 61) _____
13–inch set, $147.99; 19–inch set, $208.95; 21–inch set, $231.99; 27–inch set, $289.97;
50–inch set, $519.97. Estimate the cost of **one** 19–inch set and **two** 50–inch sets.

Section 6.1

62) A machine can fill 2550 boxes of cereal in 0.3 hour. What is the rate in boxes per hour? 62) _____

63) Sove for x: $\frac{48}{128} = \frac{12}{x}$ 63) _____

64) Jim drove 168 mi in 4 hr. If he can keep the same pace, how long will it take him to drive 504 mi? 64) _____

Section 6.3

65) Which of the following are equivalent forms of the same number? 65) _____

A) 0.88 88% $\frac{22}{25}$

B) 8.75 87.5% $\frac{7}{8}$

C) $0.5\overline{6}$ $56.\overline{6}\%$ $\frac{5}{6}$

D) 0.7 7% $\frac{7}{10}$

Section 6.5

66) What percent of 6 is 50.4? 66) _____

Section 6.6

67) At one point in 2004, a quarterback had completed 46.3% of his passes throughout his career. He had attempted 2206 passes. How many did he complete? (Round to the nearest whole number.) 67) _____

68) Sales of frozen pizza for a club fund–raiser increased from 500 one year to 575 the next year. What was the percent of increase? 68) _____

Sectiion 6.7

69) The regular price of a ring is $301.50. During a May jewelry sale, the ring was discounted 35%. What was the discounted price? 69) _____

70) What is the simple interest on a principal of $15,000 invested at a rate of 2% for 2 years? 70) _____
Hint: $I = Prt$.

Section 7.1

71) The five sales people at Southwest Appliances earned commissions last year of $20,000, $22,000, $44,000, $15,000, and $35,000. What was the mean commission? 71) _____

72) Find the median. 64, 60, 211, 170, 275, 249, 237 72) _____

73) Find the mode: 20, 28, 46, 28, 49, 28, 49 73) _____

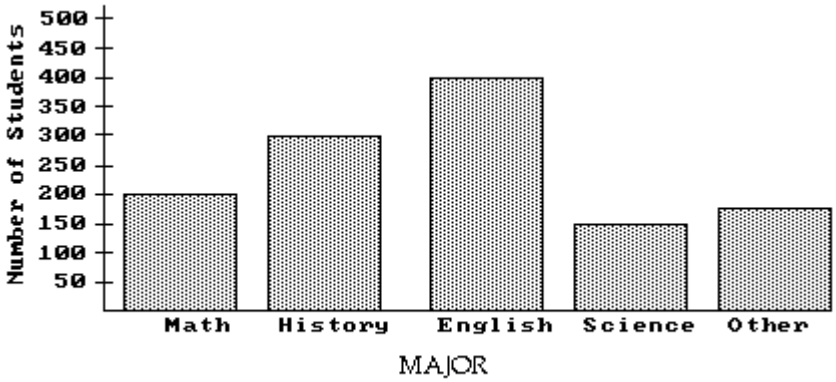
Section 7.2

74) The following table contains information about moons orbiting a planet named Geo I. Which moons have average distance from Geo I less than ten thousand kilometers? 74) _____

Moon	Average Distance from Geo I (km)	Diameter (km)	Time of Revolution (in Earth time, years)
Luna 1	3000	411	0.75
Luna 2	3900	2169	2.31
Luna 3	60,000	312	4.08
Luna 4	86,400	723	29.22
Luna 5	198,000	1134	75.24

Section 7.3

75) The bar graph below shows the number of students by major in the College of Arts and Sciences. About how many students are in the College of Arts and Sciences? 75) _____



1) C
2) 2 thousands + 4 tens
3) 87,616
4) 378 mi
5) 18,252
6) 245,680
7) 40,000
8) 128 sq ft
9) 66 R 61
10) 1211 feet
11) 1820
12) 21
13) 43,200
14) 45
15) –84
16) –69
17) –45
18) A
19) –24
20) –7
21) –1
22) 2660 points
23) 4320
24) –1
25) –64
26) –8
27) 1108
28) 9
29) 55
30) 36
31) $\frac{-16}{b}$ and $\frac{16}{-b}$
32) 125, –125
33) –27m + 26
34) 6x – 12y + 5
35) 28 ft
36) 10
37) Yes
38) 2, 3, 6
39) 1, 2, 4, 7, 8, 14, 28, 56
40) Prime
41) $2 \cdot 3 \cdot 3 \cdot 11$
42) $\frac{4}{3}$
43) 0
44) Undefined
45) $\frac{5}{7}$

46) $-\frac{7}{6}$

47) 1196 in.^{2}

48) $\frac{27}{8}$

49) 60

50) $\frac{119}{120}$

51) $7\frac{2}{5}$

52) $16\frac{3}{10}$

53) 16

54) $1\frac{3}{4}$

55) 0.00068

56) 224.17

57) 3779.561

58) 1.6213

59) 39.6

60) 93

61) $1250

62) 8500 boxes/hr

63) 32

64) 12 hr

65) A

66) 840.0%

67) 1021 passes

68) 15%

69) $195.98

70) $600.00

71) $27,200

72) 211

73) 28

74) Luna 1 and Luna 2

75) 1225