**PreAlgebra**

**Final Exam/Midterm review worksheet**

***Problem numbers 1-19, 23-49, 52-57, 66-69, 78-86, 89, 90, 117-120, 129-140, and 150-152 are review concepts that may be covered on the midterm exam.***

**Find the perimeter.**

156 yards

156 yards

527 yards

392 yards

238 yards

75 mi

51 mi

46 mi

48 mi

82 mi

74 mi

**Find the area.**

1. **A = LW**

7 cm.

10 cm.

1. ****

4 in.

12 in.

**Write in words.**

5. 8,354,125

**Write as a number.**

6. Fifty-eight million, seven hundred thirty-two and sixteen hundredths

**Find the place value of the 2 in the following numbers.**

7. 269,571 8. 793,801,524

**Round as indicated.**

9.636,331 to the nearest ten.10. 504 to the nearest hundred.

**Write a multiplication sentence that corresponds to the situation.**

11. How many months are there in 45 years?

12.Julie can bike 56 miles a day. If she can vacation for 22 days, what is the maximum distance she can cover?

**Write division sentence that corresponds to the situation. Do not carry out the division.**

13. A group of 7 people wants to buy a boat. The boat costs $273. If they all pay the same amount, how much is each person’s share?

14. The city bridge has 9 lanes, all carrying equal number of cars. If 297 cars drive across the bridge, how many cars cross in each lane?

**Complete the following fractional representation problems.**

15. Shade in  of the rectangle.

**Use the following word problem to answer questions 16 – 19.**

An art dealer is taking inventory. His shop contains a total of 37 pieces, which consist of sculptures, watercolor paintings, and oil paintings. If there are 15 watercolor paintings and 17 oil paintings, answer the following questions.

16. What fraction of the inventory are watercolor paintings?

17. What fraction of the inventory are oil paintings?

18. How many sculptures are there?

19. What fraction of the inventory are sculptures?

**Use the Pythagorean Theorem to find the length of the side not given.**

20. leg = 3, leg = 4

21. leg = 7.5, leg = 4

22. leg = 5, hypotenuse = 13

**Write the following in exponential form.**

23.  24. 

**Find the prime factorization of the number.**

25. 70 26. 126

**Simplify.**

27.  28. 

29. 30.

31. -91 + 9732. -2 + (-6)

33. 24 – (-9) 34. -11 – (-18)

35. (-5)(-5)(-3)36. 

37.  38. 

39.  40. 

41. 3r – 5r + 8 + r 42. –(12b – 10) + 5(3b – 2)

43. 3x – 4(x + 2) + 1 44. 

45.  46.  47.  48.  49.  50.  51. 

**Multiply.**

52.  53. 

54.  55. 

**Write the fraction in its lowest terms.**

56. 57. 

**Write the following as a fraction in lowest terms.**

58. 0.40 59. 8.75%

60. 

**Simplify.**

61.  62. 

63.  64. 

65. 

**Solve.**

66. A restaurant has a capacity of 32 patrons. If the restaurant is  full, how many patrons are at the restaurant?

67. A recipe calls for  cup of milk. How much milk should be used to make  of the recipe?

68. Find the quotient of 6 and .

69. Subtract 12 from .

70. Convert 129 inches to feet. Write your answer as a decimal.

71. 1 yard 2 feet = \_\_\_\_\_ inches

72. 16 yard 2 feet  5 = \_\_\_\_ yds \_\_\_\_ ft

73. 0.2m = \_\_\_\_\_ mm

74. 9.6m ÷ 5 = \_\_\_\_\_ m

75. 30cm + 8.9m = \_\_\_\_\_ m or \_\_\_\_\_ cm

76. Convert 53mm to meters.

77. How many centimeters are in 0.2km?

**Divide and simplify.**

78.  79. 

**Add and, if possible, simplify.**

80.  81. 

82. 

**Use < or > to write a true sentence.**

83.   84.  

85.  86. 

**Solve.**

87.  88. 

89.  90. 

91.  92. 

93. While walking Joe’s heart beats 4790 times in 50 minutes. What is the rate in beats per minute?

94. Two packets of pudding contain 13 servings. What is the rate in servings per packet?

**Round the number as requested.**

95. Round to the nearest tenth: 1.23 96. Round to the nearest hundredth: 1.274

**Combine like terms.**

97.  98. 

**Evaluate.**

99. *P + Prt*, for P = 5000, r = 0.06 and t = 5.5 100. *2na+.5n(n-1)d* for n = 6, a = 3.5 and d = 9

**Write the fraction in decimal notation.**

101.  102. 

**Estimate by rounding as directed.**

103. 15.9745 + 74.5890; nearest tenth 104. 32.432 – 14.18; nearest tenth

**Mean, Median & Mode**

105. During an experiment, the following times (in seconds) were recorded:

 7.8, 6.9, 7.5, 4.7, 6.9, 7.0

 Find the mean (to the nearest tenth), median, and mode.

106. In a mathematics class, the following test scores were recorded for a student:

 93, 85, 89, 79, 88, 91

 Find the mean (to the nearest hundredth), median, and mode.

107. The following pulse rates were recorded for a group of 15 students:

 78, 80, 66, 68, 71, 64, 82, 71, 70, 65, 70, 75, 77, 86, 72

Find the mean, median, and mode.

**Solve.**

108. Mr. Lee wanted to keep track of how far he was driving today. He drove to Lodi which was 35.15 miles, then he drove to Merced which was 10.11 miles, then he drove home which was 18.03 miles. How far did Mr. Lee drive?

109. Mrs. Hernandez prepared her grocery list at home. Her list contained the following items with their sale prices: cheese - $3.97; crackers - $2.87; soda - $3.01; hamburger - $2.97; and gum - $0.97. She bought all of the items at the store except the crackers. How much money did she spend?

110. The population of Nowhere, USA was estimated to be 668,100 in 2003, with an expected increase of 5.5% year. At the rate of increase given, what is the expected population in 2004? Round your answer to the nearest whole number.

111. Suppose that, in 2006, France produced 13.973 million bikes. The total world production that year totaled 120 million bikes. What percent of the world’s production of bikes is contributed by France? Round your answer to the nearest tenth of a percent.

112. The purchase price of a camcorder is $799. What is the total price if the sales tax rate is 7.5%?

113. The sales tax on the purchase of a TV-DVD combination is $32.85. If the tax rate is 9%, find the purchase price of the TV-DVD.

114. A salesperson earned $1750 for selling fertilizer. If her commission rate is 7%, find the selling price of the fertilizer.

**Write the decimal as a fraction in lowest terms.**

115. -39.08 116. 0.0108

**Simplify.**

117.  118. 

119.  120. 

121.  122. 

123.  124. 

125.  126. 

127.  128. 

129.  130. 

**Solve.**

131.  132. 

**Find the LCD.**

133. ,, 134. 

135.  136. 

**Evaluate.**

137.  for a = 6 and b = 4. 138.  for x = 2 and y = 3

139.  140. 

141. **Find the rate, or speed, as a ratio of distance to time.**

341.25 m, 1.75 hr

**142 – 149 (each line) Fill in the missing values.**

|  |  |  |
| --- | --- | --- |
| Fraction notation | Decimal notation | Percent notation |
|  |  | 87.5% |
|  |  |  |
|  |  |  |
|  | 2.8 |  |

**Identify the property being illustrated.**

150.  151. 

152. 

Pre Algebra Final Review

**Solutions**

1. 1469 yards
2. 376 miles
3. 70 cm2
4. 24 in2
5. Eight million, three hundred fifty-four thousand, one hundred twenty-five
6. 58,000,732.16
7. Hundred thousand
8. Tens
9. 636,330
10. 500
11. months
12. miles
13. 
14. 
15. 
16. 
17. 
18. 5
19. 
20. 5
21. 8.5
22. 12
23. 
24. 
25. 
26. 
27. 22
28. 33
29. 98
30. 78
31. 6
32. –8
33. 33
34. 7
35. –75
36. –12,600
37. 14
38. –16
39. 
40. 
41. – r + 8
42. 3b
43. – x – 7
44. -56
45. -5
46. -28
47. -3
48. 23
49. 
50. 
51. 
52. 
53. 
54. 
55. 
56. 
57. 
58. 
59. 
60. 
61. 11
62. 14
63. 
64. 
65. 
66. 28 patrons
67. cup
68. -3
69. -48
70. 10.75 feet
71. 60 inches
72. 83 yards 1 foot
73. 200 millimeters
74. 1.92 meters
75. 9.20 meters / 920 centimeters
76. 0.053 meters
77. 20,000 centimeters
78. 
79. 
80. 
81. 
82. 
83. <
84. <
85. >
86. <
87. 
88. 
89. 
90. 
91. 
92. 
93. 
94. 
95. 1.2
96. 1.27
97. 15.6*b*
98. 
99. 6650
100. 177
101. 0.6875
102. 0.375
103. 90.6
104. 18.2
105. 6.8, 6.95, 6.9
106. 87.50, 88.5, None
107. 73, 71, 70 & 71
108. 63.29 miles
109. $10.92
110. 704,846
111. 11.6%
112. $858.93
113. $365
114. $25,000
115. 
116. 
117. –1
118. –28
119. 6
120. 5
121. 
122. 
123. 
124. 
125. 
126. 
127. 
128. 
129. 
130. 
131. 
132. 
133. 105
134. 18*x*
135. 76
136. 660
137. 10
138. 22
139. 95
140. -27
141. 195 m/hr
142. Fraction 
143. Decimal 
144. Decimal 
145. Percent 
146. Decimal 
147. Percent 
148. Fraction 
149. Percent 
150. Commutative
151. Associative
152. Commutative