

Math 8 Problem Set #11

1. Of the total school population of 810 students, 208 live outside the city limits. About what percentage of the students live outside the city limits?
 - a. 40%
 - b. 25%
 - c. 20%
 - d. 15%

2. Which situation BEST represents a proportional relationship?
 - a. Sandra sold 2 bracelets for \$3 and 3 bracelets for \$6.
 - b. Jeff ran 4 miles in 20 minutes and 6 miles in 24 minutes.
 - c. Lamont packed 27 glasses in 9 cases and 81 glasses in 27 cases.
 - d. Fernanda placed 8 pencils in 2 boxes and 16 pencils in 8 boxes.

3. Find which is the better buy (lower cost per ounce) by finding each unit price. Assume that different sizes of the same brand are being compared.

Popcorn:
\$1.20 for 15 ounces
\$2.24 for 28 ounces

 - a. \$2.04 for 28 ounces
 - b. \$1.04 for 15 ounces
 - c. Both cost the same per ounce.

4. Which set of angles is complementary?
 - a. 90 and 90
 - b. 180 and 180
 - c. 150 and 30
 - d. 40 and 50

5. If the radius of a circle is 20, find the circumference of the circle to the nearest tenth.
 - a. 62.8
 - b. 31.4
 - c. 125.6
 - d. 1256

6. At the produce store you can buy 4 bags of bananas for \$22.52. How much would it cost to buy 2 bags?
- \$11.26
 - \$10.26
 - \$20.52
 - \$11.52
7. Avery mowed 7 lawns in 4 hours. At this rate, how long will it take him to mow 21 lawns?
- 4 hours
 - 8 hours
 - 12 hours
 - 21 hours
8. Simplify $\frac{-3}{4} + 1\frac{2}{3} + \frac{3}{4} + \frac{1}{3}$
- 1.5
 - 1
 - 2
 - 1
9. Simplify:
 $-1.8 + 5.2 - (-1.8) + 2.6$
- 6
 - 6
 - 7.8
 - 4.2
10. Which expression is equivalent to $(5.5 \times 10^2) + (6.0 \times 10^3)$ and written in scientific notation?
- 1.15×10^6
 - 1.5×10^6
 - 6.55×10^3
 - 11.5×10^5
11. The earth's atmosphere is about 20.95% oxygen, 78.084% nitrogen, and less than 1% other gases. Which is the decimal equivalent of 78.084%?
- 78.084
 - 0.78084
 - 7.8084
 - 780.84

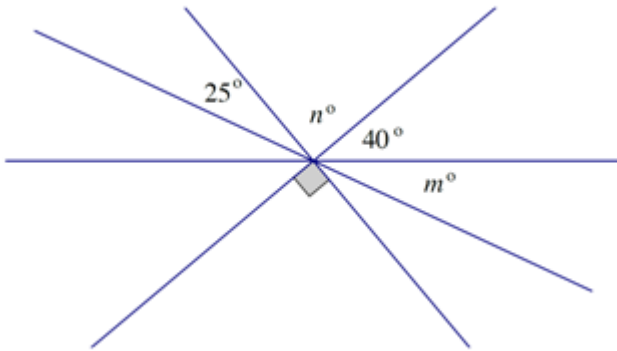
12. A figure is located entirely in the second quadrant. If it is reflected over the y-axis, in which quadrant will its image lie?
- 1st
 - 2nd
 - 3rd
 - 4th
13. What is the circumference of a circle with a diameter of 10 cm?
- 10[]
 - 5[]
 - 25[]
14. Alicia bought 2 novels regularly priced at \$24 and \$18. They were reduced by 25%. How much did Jessica save?
- \$6.00
 - \$10.50
 - \$17.00
 - \$31.50
15. Ben buys a shirt marked at \$80. He receives a 10 per cent discount. How much does he pay for the shirt?
- \$54
 - \$70
 - \$72
 - \$74
16. Emily is going to buy a new CD. It is on sale for 20 % off \$19.99. How much money does she save?
- \$15.99
 - \$20.19
 - \$23.99
 - \$3.99

17. Convert $\frac{2}{9}$ to a decimal equivalent using long division.

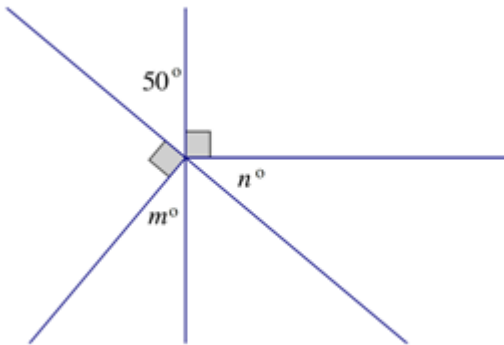
Show your work.

Answer _____

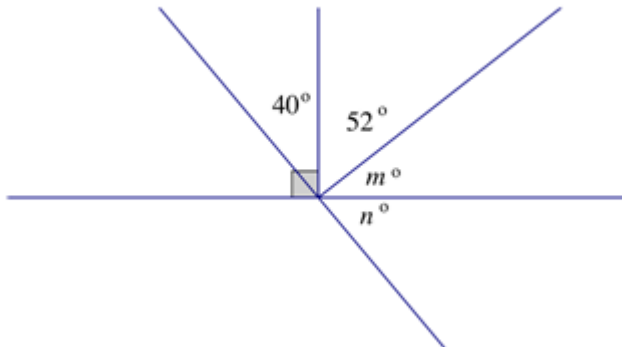
18. In each problem, set up and solve an equation for the unknown angles.
- a. Four lines meet at a point. Find the measures of m and n .



- b. Two lines meet at the vertex of two rays. Find the measures of m and n .



- c. Two lines meet at a point that is the vertex of two rays. Find the measures of m and n .



- d. Three rays have a common vertex on a line. Find the measures of m and n .

