MA065

Final Exam

Name:_____

Date:_____

1. A triangle has sides that measure 30 in, 19 ft, and 7 yd. Find the perimeter or distance around the triangle in feet.

a. 23.83 ft **b.** 42.5 ft **c.** 28.5 ft **d.** 56 ft

2. Convert 167°F to a reading on the Celsius scale.

a. 135°C **b.** 3.33°C **c.** 75°C **d.** 23.89°C

3. A cyclist was traveling at a rate of 15 miles per hour. Find the rate in feet per minute.

a. 1,320 ft / min **b.** 21,120 ft / min **c.** 88 ft / min **d.** 352 ft / min

4. Convert: 98 lb = _____ kg

a. 215.6 **b.** 6.125 **c.** 215.86 **d.** 44.9

5. Convert: 23 gallons = _____ quarts

a. 92 **b.** 12.5 **c.** 46 **d.** 5.75

6. Convert: 55 inches = _____ cm

a. 165 **b.** 139.7 **c.** 21.67 **d.** 660

7. Convert: 1658 cm = _____ m

a. 16.58 **b.** 165.8 **c.** 1.658 **d.** 0.1658

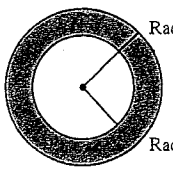
8. Find the volume of a pyramid with height 20 m and with a rectangular base that measures 25 m by 36 m.

a. 18,000 m^3 **b.** 4,500 m^3 **c.** 6,000 m^3 **d.** 9,000 m^3

9. Find the perimeter of a parallelogram with sides measuring 13.2 cm and 5.2 cm.

a. 18.4 cm **b.** 68.64 cm **c.** 32.6 cm **d.** 36.8 cm

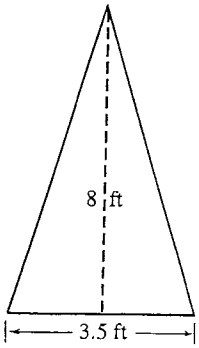
10. Find the area of the shaded region in the figure below.



a. 200.96 cm^2 **b.** 122.46 cm^2

c. 78.5 cm^2 **d.** 279.46 cm^2

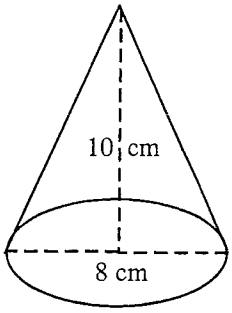
11. Find the area of the triangle.



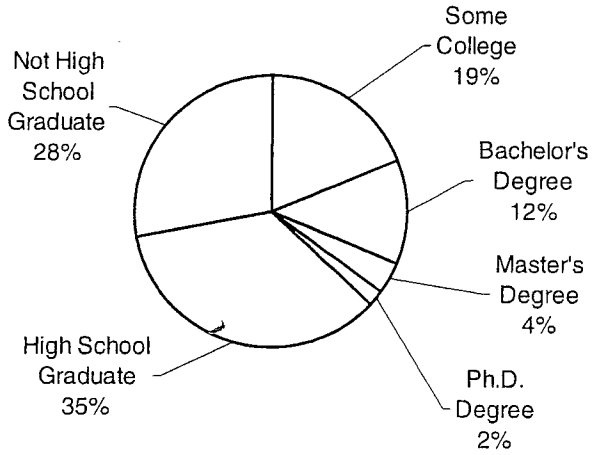
11._____

12. Find the volume of the cone. Round to the nearest hundredth.

12._____



The circle graph below shows the highest degree earned by people aged 25 years and older who live in a Midwestern town. Use the circle graph to answer questions 13 – 15.



13. What percent of the population holds the highest degree of Ph.D. or Master's Degree?

13._____

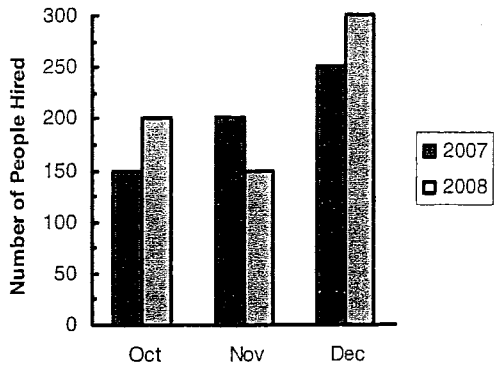
14. If 6,000 people of age 25 or older hold the Bachelor's degree as their highest degree, how many people of age 25 or older live in the town?

14._____

15. What percent of the population have no degrees at all?

15._____

The following double bar graph indicates the number of people hired to help out with Christmas sales in one city in 2007 and 2008. Use the bar graph to answer questions 16 – 18.



16. During which month and year were the most people hired? **16.** _____

17. How many people were hired in November and December of 2008? **17.** _____

18. How many people were hired in October, November, and December of 2007? **18.** _____

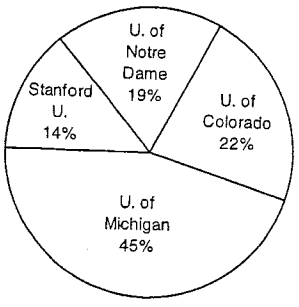
These were the daily low temperatures in degrees Fahrenheit for the first week of spring in Barrow, Alaska, one year: 10°, 5°, 6°, 13°, 4°, 11°, 22°

19. Find the mean low temperature for the week. Round to the nearest tenth, if necessary. **19.** _____

20. Find the median low temperature for the week. **20.** _____

21. The circle graph indicates the results of asking 400 people which of these four football teams they like best this year. How many people do not like Stanford?

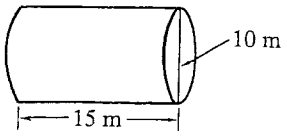
a. 56 **b.** 344 **c.** 14 **d.** 86



22. What is the area of a rhombus whose height is 7 cm and whose parallel sides are 15 cm and 17 cm?

a. 892.5 cm^2 **b.** 112 cm^2 **c.** 153 cm^2 **d.** 1,785 cm^2

23. Find the volume of the circular cylinder below.



23. _____

24. Find the length of the hypotenuse of a right triangle whose legs are 15 cm and 20 cm.

24. _____

25. Simplify: $(13)(-4)(-6)$

a. 3 **b.** 312 **c.** −312 **d.** −54

26. Simplify: $-13-(-2)$

a. −26 **b.** −11 **c.** 15 **d.** 26

27. Simplify: $\dfrac{-20+(-3)}{(-3)\div(-1)}$

a. $\dfrac{17}{3}$ **b.** $-\dfrac{17}{3}$ **c.** $-\dfrac{23}{3}$ **d.** −30.5

28. Evaluate exactly: $\sqrt{100}-\sqrt{64}$

a. 1 **b.** 2 **c.** 3 **d.** 4

29. Evaluate: $-63\div 7$

a. −8 **b.** −9 **c.** 441 **d.** 9

30. Evaluate: $\dfrac{-\frac{4}{7}}{-\frac{7}{11}}$

a. $-1\dfrac{1}{14}$ **b.** $\dfrac{44}{49}$ **c.** $-\dfrac{28}{77}$ **d.** $-\dfrac{15}{49}$

31. Evaluate: $(6)(-4)(2)(-1)\left(-\dfrac{1}{6}\right)$

a. −8 **b.** −12 **c.** 12 **d.** 8

32. Evaluate: $\dfrac{112}{-7}$

a. 42 **b.** 14 **c.** −105 **d.** −16

33. Simplify: $-7(x-y-2z)$

a. $-7z-7y-14z$ **b.** $-7x+7y-14z$

c. $-7x+7y+14z$ **d.** $7x-7y-14z$

34. Simplify: $(2.4)(a-0.2b+3.5c)$

a. $2.4a+2.2b+5.9c$ **b.** $2.4a-4.8b+8.4c$

c. $2.4a-4.8b+84c$ **d.** $2.4a-0.48b+8.4c$

35. Solve: $25-5x=80$

a. 21 **b.** $\frac{8}{3}$ **c.** -11 **d.** 4

Extra Credit

1. Solve: $2(7-x)=3(x+3)$

a. -1 **b.** 1 **c.** $\frac{23}{5}$ **d.** 5

2. Solve: $-x-7=-2x-11$

a. -4 **b.** 4 **c.** 14 **d.** -14

3. $7-5(2-x)=-(x-8)$

a. $\frac{5}{4}$ **b.** $\frac{7}{2}$ **c.** -4 **d.** $\frac{11}{6}$

4. Solve: $5(x+9)-23=42$

a. 4 **b.** 5 **c.** -4 **d.** 16

5. Solve: $3x+31=x-25$

a. 28 **b.** -28 **c.** 13 **d.** 16