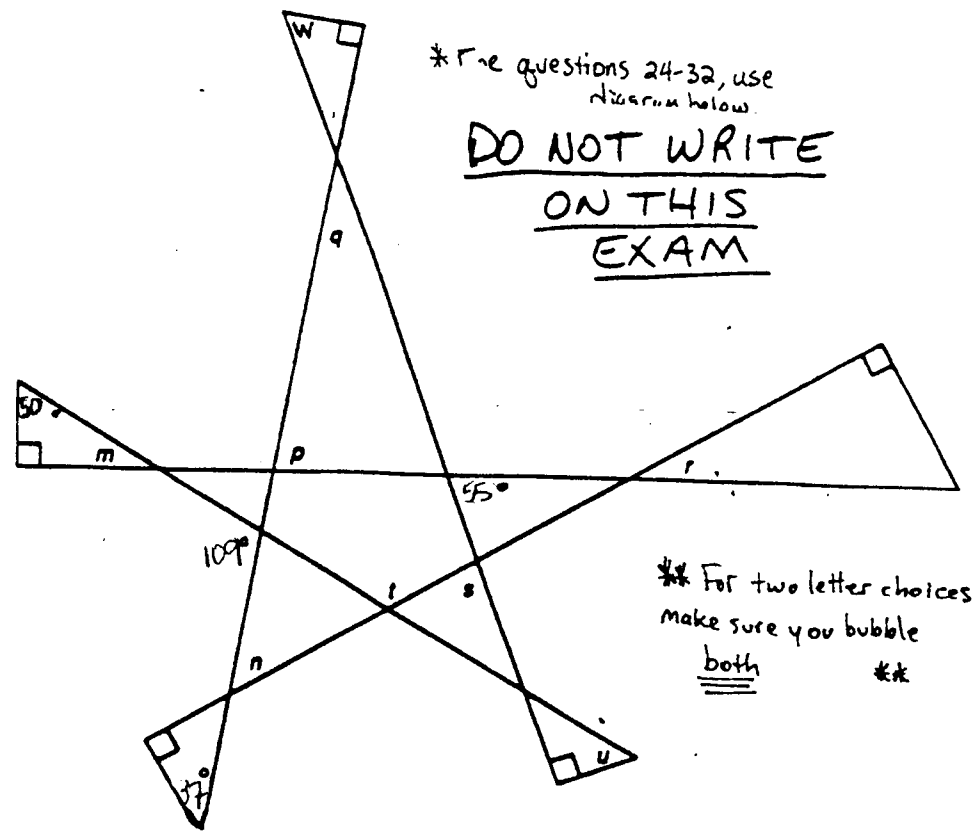


FINAL EXAM
Review for Chapter 1
8 of these will be on the exam

1. Find the sum of $1 + 2 + 3 + \dots + 625$.
2. Find the 80th term of the sequence 12, 16, 20, 24....
3. Find the sum of $28 + 29 + 30 + \dots + 300$.
4. Find the 90th term of the sequence 4, 15, 30, 49....
5. Find the sum of $1 + 3 + 5 + \dots + 99$.
6. Find the sum of the first 400 odd numbers.
7. Find the 100th term of 0, $3/2$, 4, $15/2$, 12....
8. Find the sum of $33 + 35 + 37 + \dots + 511$.
9. Find the sum of the first 3000 even integers.
10. Find the sum of $2 + 4 + 6 + \dots + 200$.
11. A classroom has 30 students. How many **different** two-person conversations are possible?
12. What is the total number of diagonals in a dodecagon?
13. Find the sum of $50 + 52 + 54 + \dots + 402$.
14. Find the difference between the sum of the first 100 multiples of 6 and the sum of the first 100 even integers.

* For questions 24-32, use
diagram below.

DO NOT WRITE
ON THIS
EXAM



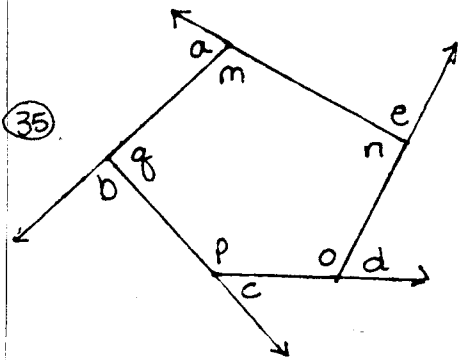
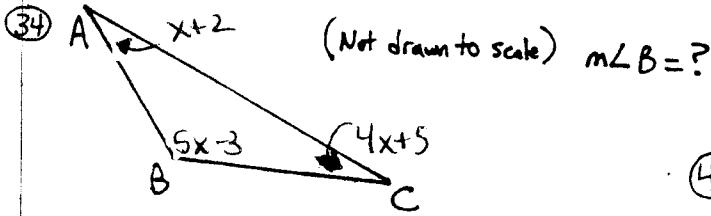
** For two letter choices,
make sure you bubble
both **

- 24 $\angle m$
- 25 $\angle n$
- 26 $\angle p$
- 27 $\angle q$
- 28 $\angle r$
- 29 $\angle s$
- 30 $\angle t$
- 31 $\angle u$
- 32 $\angle w$

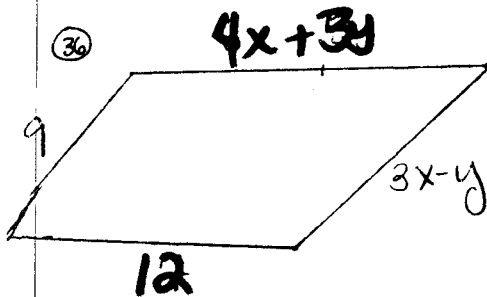
Ms. Chan's Geometry Honors Final Exam Review

23) Which of the following is not a point of concurrency on the Euler Line?

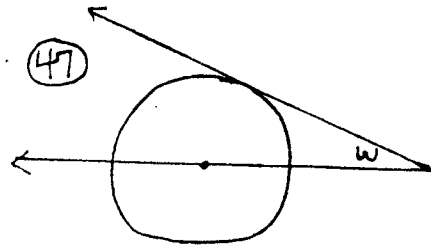
33) How many sides does an equiangular polygon have if each angle measures 168° ?



Find $(m+n+o+p+q) - (a+b+c+d+e)$

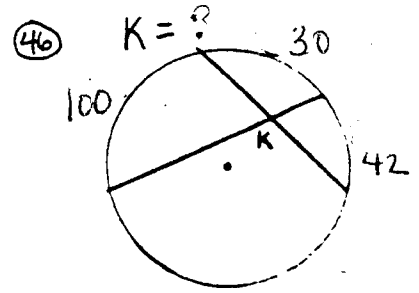


47) If the circumference of a circle measures 56 cm , what is the length of the radius?

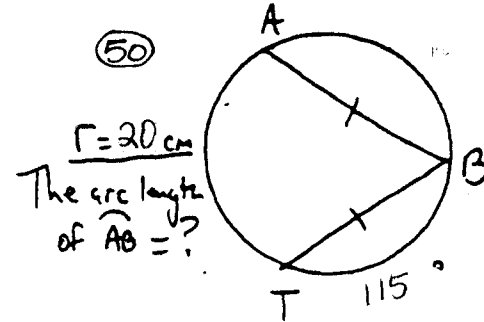


This is a parallelogram. Stop laughing, it is.
 $x+y = ?$

51) $A = 228\text{ cm}^2$ (This believe it or not is a parallelogram)



48) The degree measure of an arc is 60° and its arc length is 100π . What is the radius of the circle?

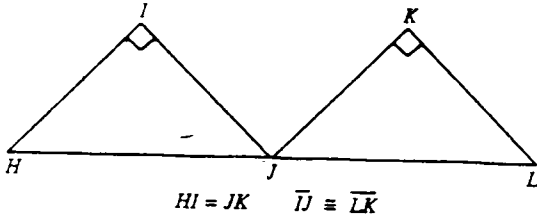


That's it for the 1st 9 weeks. All problems from here on are problems from chapters 8-12. Good Luck!

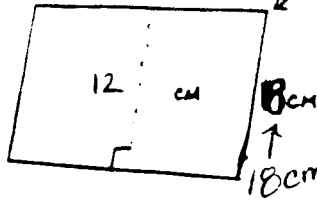
37) Choose the statement that is *not* always true.
For any parallelogram \square

38) Choose the statement that is *not* always true.
For a rhombus \square

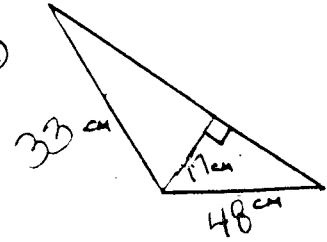
39) Refer to the figure shown. Which of the following statements is true?



51) $A = 228 \text{ cm}^2$ (This believe it or not is a parallelogram) What is the perimeter?



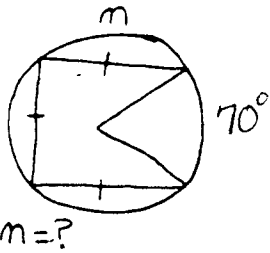
52)



If the area of this triangle is 204 cm^2 , what is the perimeter?

53) A sector of a circle has a central angle of 50° . If the area of the sector is $5\pi \text{ m}^2$, what is the radius of the circle?

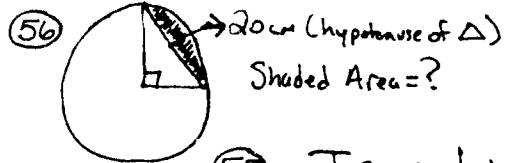
44)



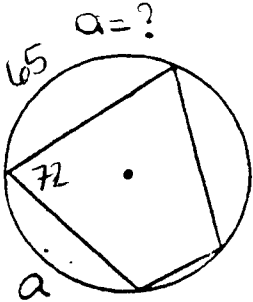
54) Find the shaded area.



55) The area of a trapezoid is 375 cm^2 . The height is 15, $b_1 = 24$, $b_2 = ?$



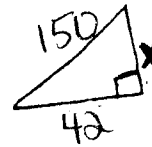
43)



57) Rationalize the denominator, then simplify.
 $\sqrt{\frac{6}{5}}$

59) Find the area of an equilateral triangle with side length 24 cm.

61)

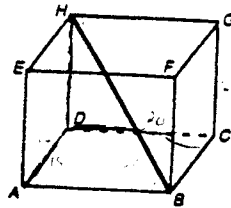


Find the perimeter.

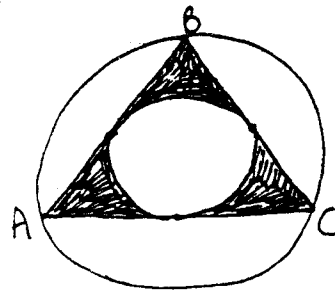
60)

What is the area in square centimeters of a right triangle that has a 45° angle and a hypotenuse of 12 cm?

- 62) In the right rectangular prism shown on the right, $AD = 30$ cm, $CD = 10$ cm, and $CG = 9$ cm. What is the length of the diagonal BH in centimeters?



Shaded area = ?

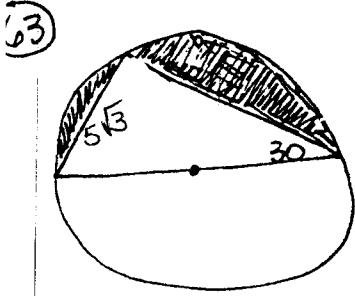


ΔABC is equilateral. $AB = 14$...

64) Area of Δ

65) Area of circumscribed circle

66) Shaded Area = ?



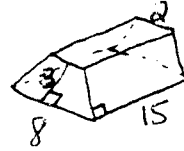
69) Find the volume.

70) Find the volume of a right cone with a radius of 8 cm and a slant height of 17 cm.

77) A sphere has a volume of 2304π in³.

Surface Area = ?

72) Find the height of a cone with a volume of 600π cubic meters and a base area of 360π square meters.



71) Surface Area from #70 = ?

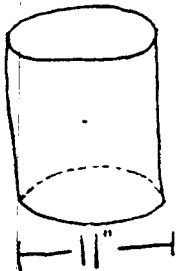
73) If a polyhedron has 10 edges and 6 vertices, how many faces does it have?

75) A trapezoidal pyramid has a volume of 350cm^3 . The height of the pyramid is 10 cm, and the lengths of the two bases are 12 cm and 18 cm. What is the height of the trapezoidal base?

74) The mad scientist Dr. I. B. Goode finds a clump of mysterious metal on his laboratory floor. He weighs it and finds that the clump weighs _____ grams. He then drops it into a cylindrical container causing the water level to rise _____ cm. If the radius of the base of the container is _____ cm, use the table below to determine the type of metal (assuming it is pure). Use 3.14 for π .

Metal	Silver	Lead	Platinum	Gold
Density	10.5	11.3	21.4	19.3

76) Find the surface area of the cylinder below to the nearest square inch. Use 3.14 for π .



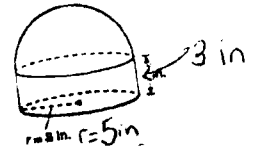
78) A drinking cup in the form of a cone has an altitude of 4 cm and a radius at the top of 9 cm. The cup is filled with water and then poured into an empty cylindrical container that has an altitude of 12 cm and a radius of 2 cm. What is the depth in centimeters of water in the cylindrical container?

79) Find the volume of a hexagonal prism with side length 40 m and height 8 m.

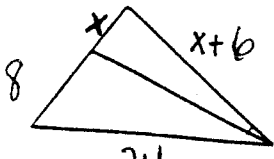
80) Find the surface area of a hexagonal pyramid with side length 10 cm and height 12 cm. (If you are worried about time, skip this problem until the end)

82)

81) A can of tennis balls has an inside diameter of 10 cm and a height of 30 cm. If the diameter of a tennis ball is 4 cm, how much empty space is there in a can of three balls?



35



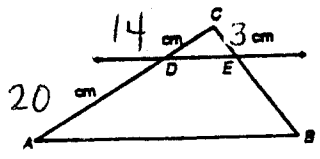
$x = ?$

88

The ratio of the weights of two solid plastic balls is 9:64. What is the diameter of the larger if the smaller has a radius of 6 cm?

89

In the figure on the right, $\overline{DE} \parallel \overline{AB}$. What is BE ?



36

$f = ?$

90

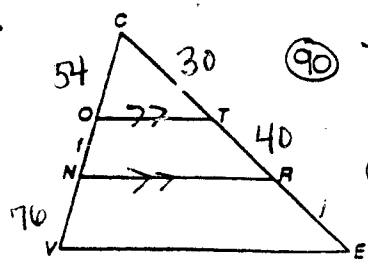
The ratio of the bases (areas) of 2 prisms is 25:81. What is the ratio of their volumes?

37

$g = ?$

91

The area of a region is 2543 cm^2 . If the dimensions of this region are doubled, what would the new area be?



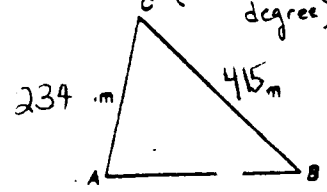
1. The angle of elevation from a ship to the top of a 98 meter lighthouse on the shore is 32° . How far is the ship from the shore to the nearest meter?

2. What is the area of a triangle (to the nearest tenth of a m^2) having sides of 8 m and 12 m if the measure of the angle between the two given sides is 54° ?

- Use: $\sin 54^\circ = 0.8090$
- $\cos 54^\circ = 0.5879$
- $\tan 54^\circ = 1.3764$
- $\tan 36^\circ = 0.7265$

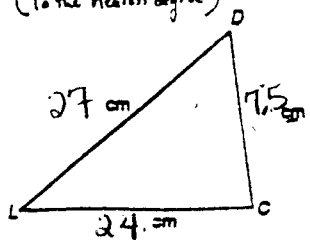
93

$m\angle B = ?$
(To the nearest degree)



94

$m\angle C = ?$
(To the nearest degree)

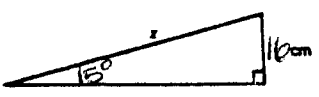


97

The cosine of an angle is the ratio:

3. Find the area of a regular octagon with side length 6 cm.

8. Which of the following expressions correctly represents the value of x for the diagram to the right?



99

The tangent ratio of a right Δ is equivalent to

100. "How did all these people get in my room?" is the opening of a wonderful concert at the Sands Hotel by:

- A. DMX B. N Sync C. Madonna D. Francis Albert Sinatra