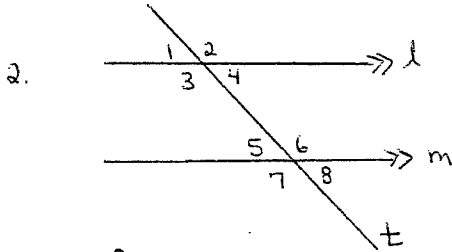
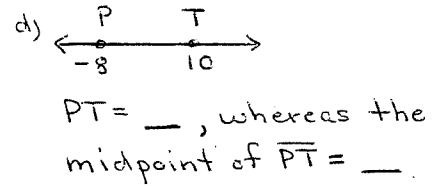
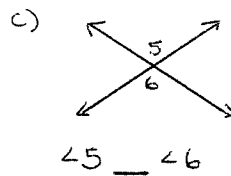
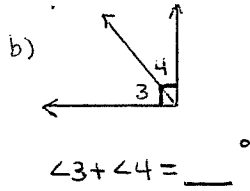
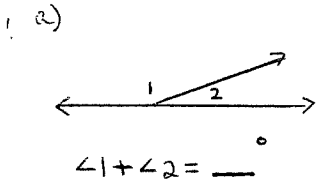
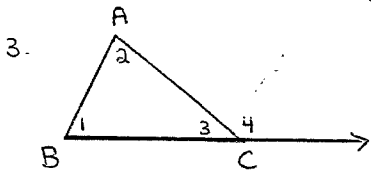


Geometry Final Exam Review

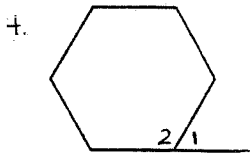
Name _____ #1



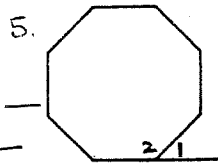
- a) $\angle 1$ and $\angle 5$ are called $\underline{\hspace{2cm}}$ \angle s
 b) $\angle 3$ and $\angle 6$ are called $\underline{\hspace{2cm}}$ \angle s
 c) name all \angle s congruent to $\angle 1$ $\underline{\hspace{2cm}}$
 d) what relationship exists between $\angle 4$ and $\angle 6$. $\underline{\hspace{2cm}}$



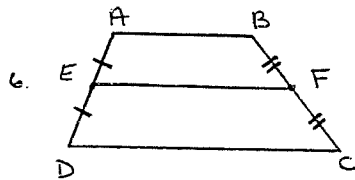
- a) the angles of the Δ are in the ratio 4:5:6. Find the measure of each angle. $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.
 b) $\angle 1 + \angle 2 = \angle \underline{\hspace{2cm}}$
 c) if $\angle 4 = 130^\circ$, find the other angle measures of the isosceles Δ with $AB = AC$. $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.



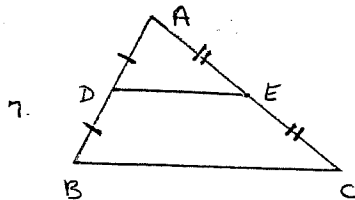
- given a regular hexagon find
 a) the sum of the \angle s $\underline{\hspace{2cm}}$
 b) $m\angle 2$; $m\angle 1$ $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$



- given a regular octagon, find
 a) the sum of the \angle s $\underline{\hspace{2cm}}$
 b) $m\angle 2$; $m\angle 1$ $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

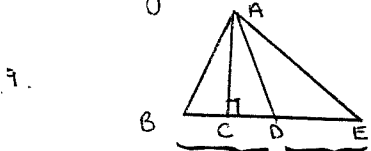


- ABCD is a trapezoid.
 a) $m\angle A = 110^\circ$ find $m\angle FED$, $m\angle D$. $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
 b) name the median of the trapezoid $\underline{\hspace{2cm}}$
 c) if $AB = 12$ and $CD = 20$ then $EF = \underline{\hspace{2cm}}$.

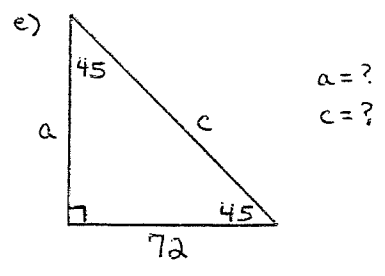
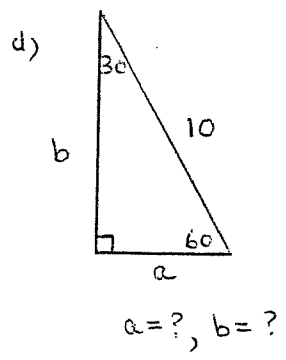
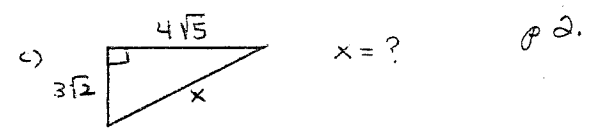
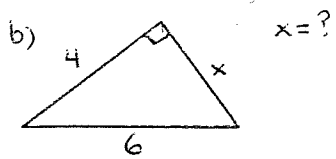
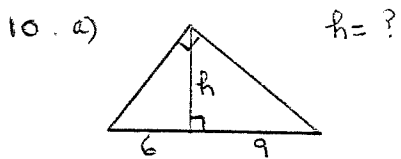


- a) DECB is a $\underline{\hspace{2cm}}$.
 b) if $BC = 17$ then $DE = \underline{\hspace{2cm}}$.
 c) $DE = 3x - 1$, $BC = 5x + 1$. find x $\underline{\hspace{2cm}}$

8. a) In ΔPQR $\angle P = 63^\circ$, $\angle Q = 60^\circ$. Find the longest and shortest sides of the Δ $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.
 b) In ΔABC , $AB = 5$, $BC = 6$, $AC = 4$. Find the largest and smallest \angle s of the Δ . $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.
 c) In ΔTWR , $\angle T = \angle W$. Name the equal sides. $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.
 d) Two sides of a Δ are 8 and 12. The third side must have length greater than $\underline{\hspace{1cm}}$ but less than $\underline{\hspace{1cm}}$.

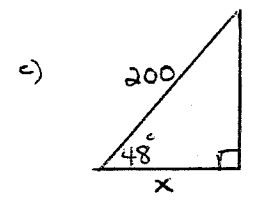
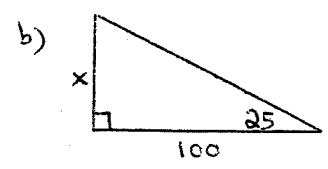
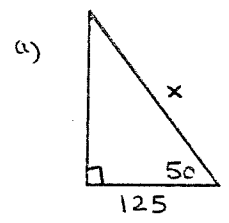


- a) name the median of ΔABE $\underline{\hspace{2cm}}$
 b) name the altitude of ΔABE . $\underline{\hspace{2cm}}$



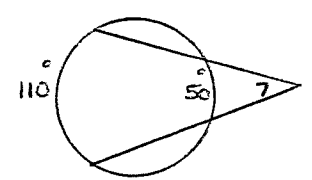
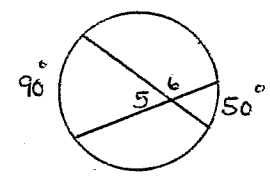
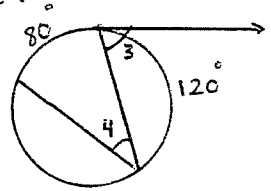
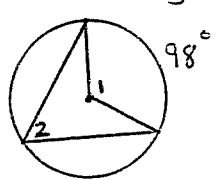
- f) Is the Δ acute, right, or obtuse with lengths given below:
- (i) 4, 5, 6 _____
 - (ii) 6, 8, 11 _____
 - (iii) 7, 24, 25 _____
 - (iv) 6, 6, 13 _____

11. Write an equation using trigonometry to solve for x :
use SOHCAHTOA.

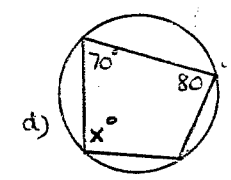
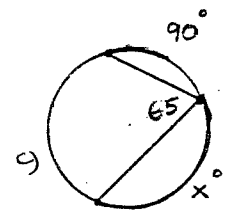
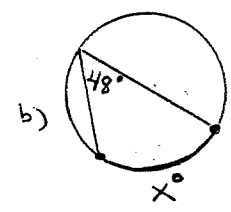
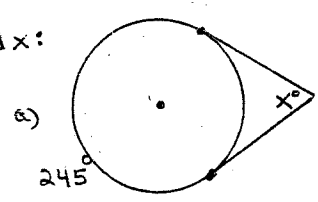


d) Draw your own right Δ and find the $\sin 30^\circ$, $\tan 60^\circ$, $\cos 45^\circ$ (exact values!!)

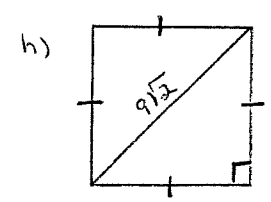
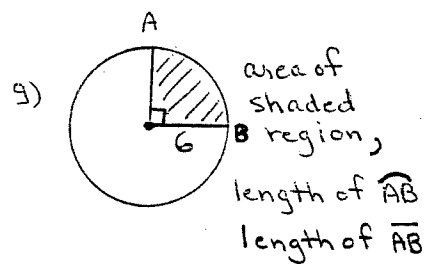
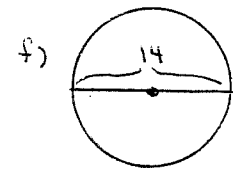
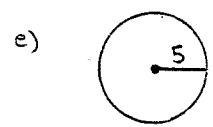
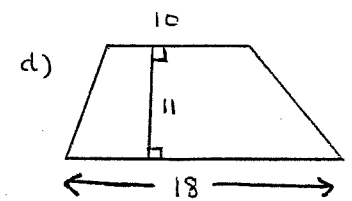
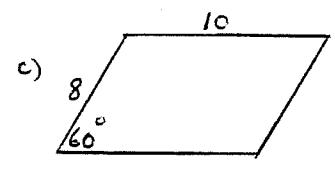
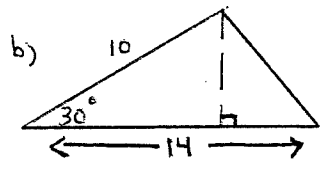
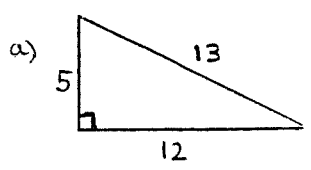
12. Find each angle measure:



3 Find x :



4. Find the area of each:

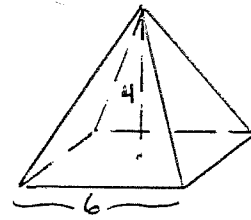


15.



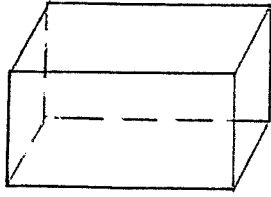
cylinder with radius 3cm and height 2cm
a) LA b) TA c) V

16.



square pyramid with height 4, base edge 6
find
a. slant height
b. LA c) TA d. V

17.



$l=12$ $w=3$ $h=4$, find
a) length of diagonal of solid
b) TA c) V.

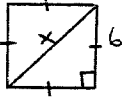
18. Let $A=(3,2)$ and $B=(-1,8)$ find a) \overline{AB} b) midpoint of \overline{AB} c) slope of \overleftrightarrow{AB}
d) slope of any line parallel to \overleftrightarrow{AB} e) slope of any line \perp to \overleftrightarrow{AB}
f) equation of \overleftrightarrow{AB} .

19. Sketch each of the following lines and indicate its slope.
a) $x=3$ b) $y=2$ c) $x+2y=10$

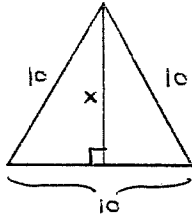
20. 2 Similar prisms have heights 4cm and 6cm. Find each ratio: a) scale factor
b) lateral areas c) total areas d) volumes e) perimeters of base.

21. Find x :

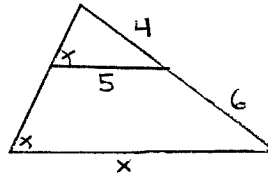
a)



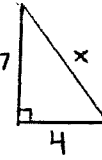
b)



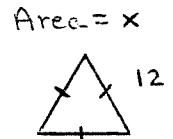
c)



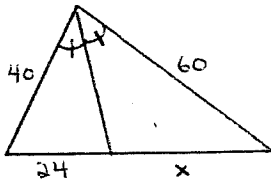
d)



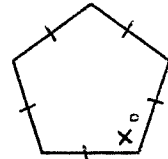
e)



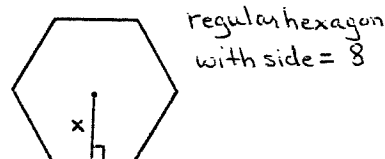
f)



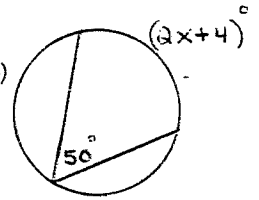
g)



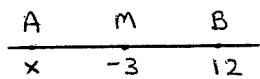
h)



i)

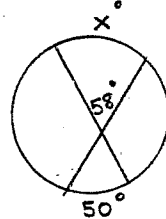


j)

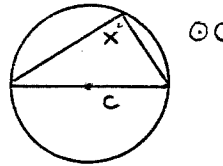


M is the midpoint of \overline{AB}

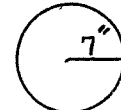
k)



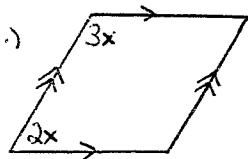
l)



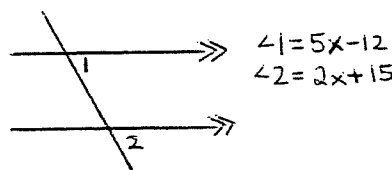
m)



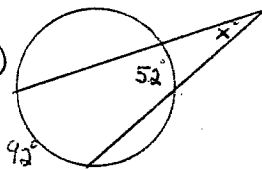
n)



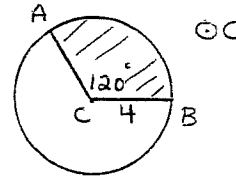
o)



p)



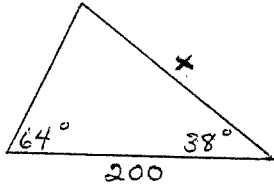
q)



m \widehat{AB} , length \widehat{AB} , area of shaded region.

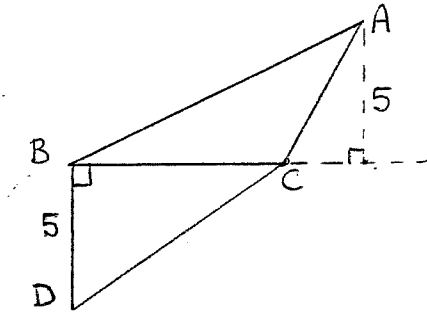
r) $x = \#$ of diagonals in a hexagon.

22. Find the length of \overline{AB} in $\triangle ABC$, if $BC = 24$, $AC = 18$ and $m\angle C = 50^\circ$.
 23. (nearest tenth)

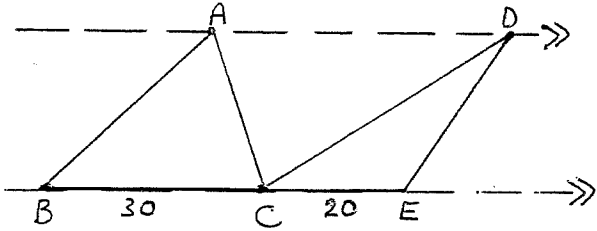


Find x to the nearest tenth.

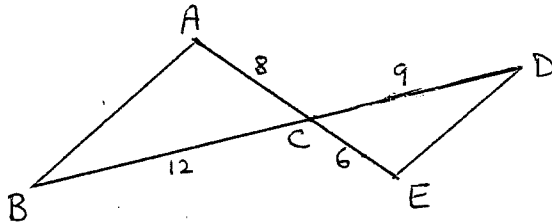
24. Find the ratio of the area of $\triangle ABC$ to $\triangle DBC$. State a reason.



25. Find the ratio of the areas of $\triangle ABC$ to $\triangle DCE$. State a reason.

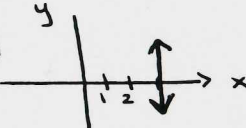
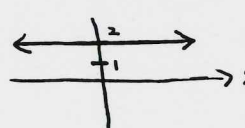
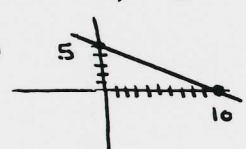


26. Find the ratio of the areas of $\triangle ACB$ to $\triangle ECD$. State a reason.



Geometry Review Answers.

1. a) 180 b) 90 c) \cong d) 18, 1 2 a) corr. \angle s b) alt. int \angle s c) \angle 4, 5, 8 d) sum=180
 3. a) 48, 60, 72 b) 4 c) \angle 1=50, \angle 2=80, \angle 3=50 4. a) 720 b) 120, 60
 5. a) 1080 b) 135, 45 6. a) 110, 70 b) \overline{EF} c) 16 7. a) trapezoid b) $8\frac{1}{2}$ c) 3
 8. a) $\overline{RQ}, \overline{PQ}$ b) $\angle A, \angle B$ c) $\overline{TR} = \overline{WR}$ d) 4, 20 9 a) \overline{AD} b) \overline{AC}
 10. a) $3\sqrt{6}$ b) $2\sqrt{5}$ c) $7\sqrt{2}$ d) $a=5, b=5\sqrt{3}$ e) $a=72, c=72\sqrt{2}$ f) (i) acute
 (ii) obtuse (iii) right (iv) not possible 11. a) $\cos 50^\circ = \frac{125}{x}$ b) $\tan 25^\circ = \frac{x}{100}$
 c) $\cos 48^\circ = \frac{x}{200}$ d) $\frac{1}{2}, \frac{\sqrt{3}}{1}, \frac{\sqrt{2}}{2}$ 12. \angle 1=98°, \angle 2=49°, \angle 3=60°,
 \angle 4=40°, \angle 5=70°, \angle 6=110, \angle 7=30° 13. a) 65° b) 96° c) 140° d) 100°
 14. a) 30 b) ?=5, A=35 c) $40\sqrt{3}$ d) 154 e) 25π f) 49π g) $A=9\pi, L=3\pi,$
 $AB=6\sqrt{2}$ h) 81 15. a) $12\pi_{cm^2}$ b) $30\pi_{cm^2}$ c) $18\pi_{cm^3}$ 16. a) 5 b) 60 c) 96 d) 48

17. a) 13 b) 192 c) 144 18. a) $2\sqrt{13}$ b) (1, 5) c) $-\frac{3}{2}$ d) $-\frac{3}{2}$ e) $+\frac{2}{3}$ f) $y-8 = \frac{-3}{2}(x+1)$
 19. a)  slope undefined b)  slope = zero c)  $y = -\frac{1}{2}x + 5, \therefore \text{slope} = \frac{1}{2}$
 or $y = -\frac{3}{2}x + \frac{13}{2}$
 or $y - 2 = -\frac{3}{2}(x - 3)$

- 20 a) $\frac{2}{3}$ b) $\frac{4}{9}$ c) $\frac{4}{9}$ d) $\frac{2}{3^3}$ or $\frac{8}{27}$ e) $\frac{2}{3}$
 21 a) $6\sqrt{2}$ b) $5\sqrt{3}$ c) 12.5 d) $\sqrt{65}$ e) $36\sqrt{3}$ f) 36 g) 108° h) $4\sqrt{3}$
 i) 48 j) -18 k) 66 l) 90° m) $14\pi \text{ in}^2$ n) 36 o) 9 p) 20
 q) $120^\circ, \frac{8\pi}{3}, \frac{16\pi}{3}$ r) 9 { 22. 18.6 { 23. 183.8 { 24. 1:1
 = bases & heights { = heights { $\sim \Delta$ s; $a^2:b^2$.

- In your book:
- p 632 1c, 2d, 3a, 4d, 5b, 6b, 7b, 8a, 9b, 10d, 11c, 12b
 - p 633 1a, 2c, 3c, 4d, 5b, 6a, 7c, 8d, 9c, 10a, 11c, 12b
 - p 634 1c, 2a, 3c, 4c, 5c, 6c, 7a, 8b, 9b, 10d, 11a, 12d, 13a, 14d
 - p 636 1a, 2d, 3b, 4c, 5b, 6a, 7d, 8b, 9b, 10c, 11c, 12d, 13b, 14d, 15d, 16b
 - p 637 1d, 2b, 3a, 4c, 5b, 6b, 7a, 8b, 9a, 10d, 11c, 12a, 13d, 14b
 - p 638 1d, 2d, 3a, 4c, 5d, 6b, 7b, 8c, 9c, 10a, 11b, 12b.