

Geometry Sem 1 - Review 2

Ch. 1 Form 1

1. D point

2. \overleftrightarrow{AB} **F** could also be named \overleftrightarrow{AC} , \overleftrightarrow{BC}

3. **point B** **B**

4. points B, C, D, E are coplanar w/A. choice **G**

5. $3.6\text{ cm} = 36\text{ mm}$ **D**

7. $BC = 25 - 13 = 12\text{ cm}$ **A**

or

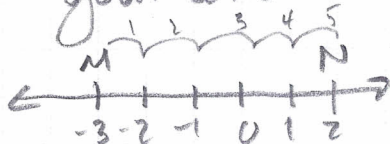
$$AC = AB + BC$$

$$25 = 13 + BC$$

$$-13 \quad -13$$

$$12 = BC$$

8. Simply count from left to right starting w/ point M as your zero



$MN = 5$ **H**

9. $P(2, 5)$ $Q(-2, 2)$

$$PQ = \sqrt{4^2 + 3^2}$$

$$= \sqrt{16 + 9}$$

$$= \sqrt{25}$$

$PQ = 5$ **A**

10. Midpoint $M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

$$\begin{matrix} x_1 & y_1 & x_2 & y_2 \\ (-2, 5) & & (4, -5) & \end{matrix}$$

$$\text{Midpoint} = \left(\frac{-2+4}{2}, \frac{5+(-5)}{2} \right) = \left(\frac{2}{2}, \frac{0}{2} \right)$$

$(1, 0)$ **G**

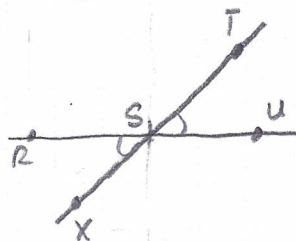
11. point B is the vertex **C**

12. acute **F**

13. $m\angle EBF = 40$ **D**

$$m\angle EBF = 90 - 50 = 40$$

15. $\angle RSX, \angle TSU$ are vert. **C**



16. **LRSV H**

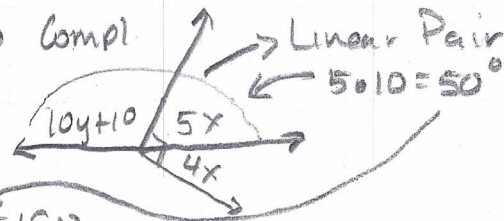


Form a line & supple. linear pair

17. $5x + 4x = 90$ Compl

$$9x = 90$$

$$x = 10$$



$$10y + 10 + 50 = 180$$

$$10y + 60 = 180$$

$$10y = 120$$

$y = 12$ **A**

Ch. 2 Form 1



$BM = MC$ G

you could also say

$BC = 2BM$

$BC = 2MC$

4. P or q OR = 1 must be true

P	∨	q
T	∨	F
True		F

5. opposite of p $\frac{\sim p}{F}$
 $\frac{F}{T}$ B

6. $\sim p \vee q$ I part true

p	q	$\sim p$	$\sim p \vee q$
T	T	F	T
T	F	F	F
F	T	T	T
F	F	T	T

 J

7. If $x+4=5$, then $x=1$
 hypothesis Conclusion
 $x+4=5$
 C

8. If cats fly, then ducks bark.
 converse flip If $\frac{1}{2}$ then
 If ducks bark, then cats fly. J

- Choice F is inverse
- " G is contrapositive
- " H is nothing
- " J is converse

9. Inverse is negating the original conditional statement

If a Δ does not have 3 equal sides, then it is not equilateral.

A

Choice B is the converse

" C is the contrapositive

" D is nothing.

ch. 3 Form 1

1. place AEF C
bottom of prism

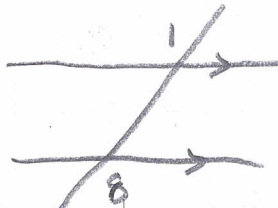
2. EF J

3. Skew \rightarrow the lines
- do not intersect
- not on the same plane
(not parallel)

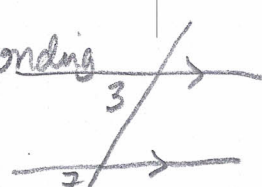
BC or AF B

Skew is like a road that goes underneath a bridge.

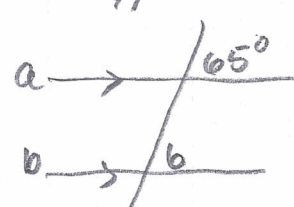
4. Alt. Ext E



5. Corresponding D



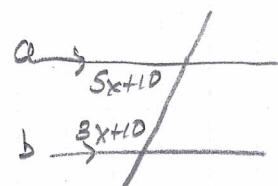
6.



Corresponding \angle s are \cong

$$m\angle 6 = 65^\circ \text{ E}$$

7.



Consecutive Int \angle s are Suppl.

$$5x + 10 + 3x + 10 = 180$$

$$8x + 20 = 180$$

$$8x = 160$$

$$x = 20 \text{ C}$$

8. Choice F \Rightarrow $\angle 1$ & $\angle 7$ are vert. \angle s
" H $\angle 4$ & $\angle 5$ are L.P. \angle s
" G $\angle 3$ & $\angle 4$ are L.P. \angle s
" J $\angle 6$ & $\angle 8$ are Corr.

$$\angle 6 \cong \angle 8 \text{ J}$$

9. Alt. Int \angle s are \cong

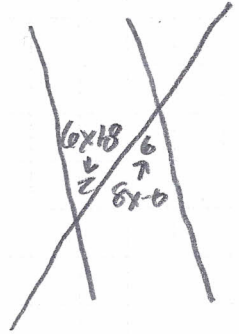
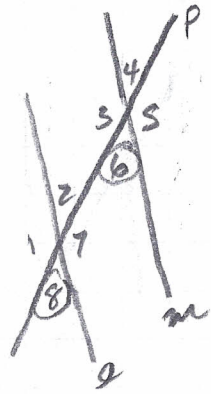
$$6x + 8 = 8x - 6$$

$$-6x + 6 \quad -6x + 6$$

$$14 = 2x$$

$$x = 7 \text{ C}$$

10. $\angle 6$ & $\angle 7$ are consecutive Int. \angle s.
E



Ch. 4 Form 1

2. Since it is equilateral any pair of sides are equal

$$10x - 5 = 6x + 3 \quad \text{or} \quad 10x - 5 = 7.5x$$

$$-6x + 5 \quad -6x + 5 \quad \text{or}$$

$$4x = 8 \quad \text{or} \quad 7.5x = 6x + 3$$

$$\boxed{x = 2 \text{ J}}$$

For 3 & 4

$m\angle 1 = 60^\circ$ Vert. w/ 60°

$m\angle 2 = 50^\circ$

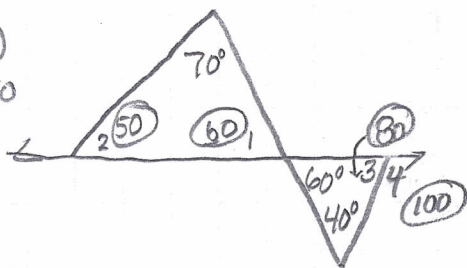
$180 - (70 + 60)$
 $180 - 130 = 50$

$m\angle 3 = 80^\circ$

$180 - (60 + 40)$
 $180 - 100 = 80$

$m\angle 4 = 100^\circ$

Forms a Linear Pair w/ $\angle 3$
 $180 - 80 = 100$



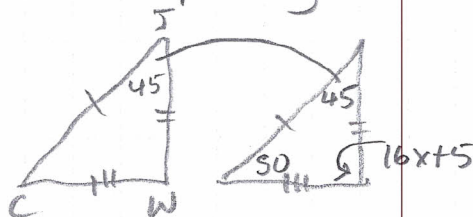
3. $m\angle 2 = 50^\circ$ **A**

4. $m\angle 4 = 100^\circ$ **H**

5. $\triangle ABE \cong \triangle CBD$ **B**

All letters must corresponding in the same order as the diagram

6. Since the triangles are \cong by SSS all corresponding Ls are \cong .



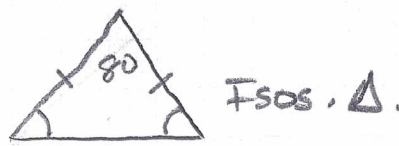
$50 + 45 + 16x + 5 = 180$

$16x + 100 = 180$

$16x = 80$

$\boxed{x = 5 \text{ J}}$

8.

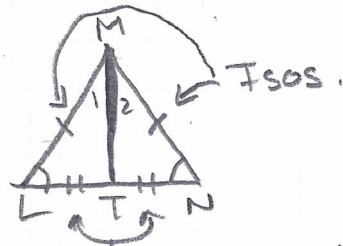


$180 - 80 = 100$

$100 \div 2 = 50$ **G**

11.

$\angle N \cong \angle L$
 \downarrow
 Isos. Δ



\cong since T is midpt.

C. SAS

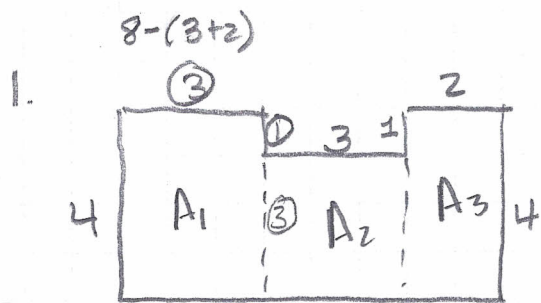
If you marked $\overline{TM} \cong \overline{TM}$ you could have used SSS, but not a choice

12. Since the Δ s are \cong , all corresponding parts are \cong . **C.P.C.T.C F**

13. Since the Δ is Isosceles M is at the $\frac{1}{2}$ way mark of \overline{LN} . Since $M(a, b)$
 \downarrow
 $\times 2$

$N(2a, 0) B$

Composite Figures



Perimeter 8m

$$P = 4 + 8 + 4 + 2 + 1 + 3 + 1 + 3$$

$$P = 26 \text{ m}$$

Area $A = 12 + 9 + 8 = 29 \text{ m}^2$

$$A_1 = 3 \times 4 = 12$$

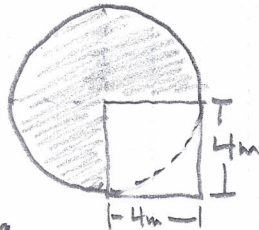
$$A_2 = 3 \times 3 = 9$$

$$A_3 = 2 \times 4 = 8$$

2.

Radius is
4m

Find the area
of $\frac{3}{4}$ of a Circle.



$$A_0 = \pi r^2$$

$$A_0 = \pi (4)^2$$

$$A_0 = 16\pi$$

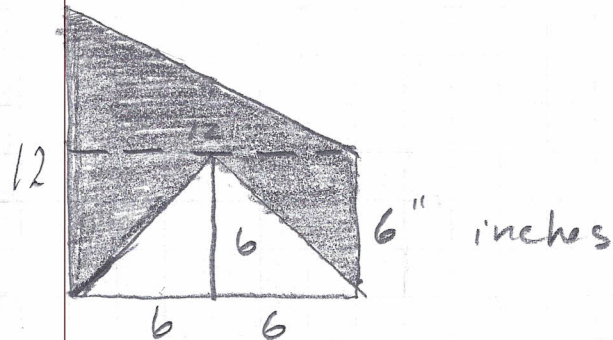
$$A \text{ of Shaded} = \frac{3}{4} (16\pi)$$

$$= 12\pi \text{ m}^2$$

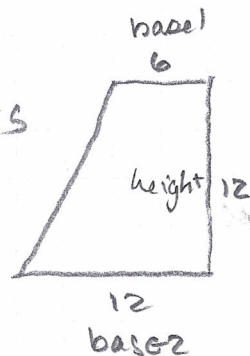
$$= 12(3.14) \text{ m}^2$$

$$= 37.68 \text{ m}^2$$

3.



A. The entire figure is
a trapezoid
on its side \rightarrow



$$A_{\text{TRAP}} = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (12)(6 + 12)$$

$$= 6^2 (18) = 108 \text{ in}^2$$

$$A_{\text{TRI}} = \frac{1}{2} bh$$

$$= \frac{1}{2} (12)(6)$$

$$= 6 \cdot 6 = 12 \text{ in}^2$$

$$A_{\text{SHADED}} = 108 - 12 = 96 \text{ in}^2$$