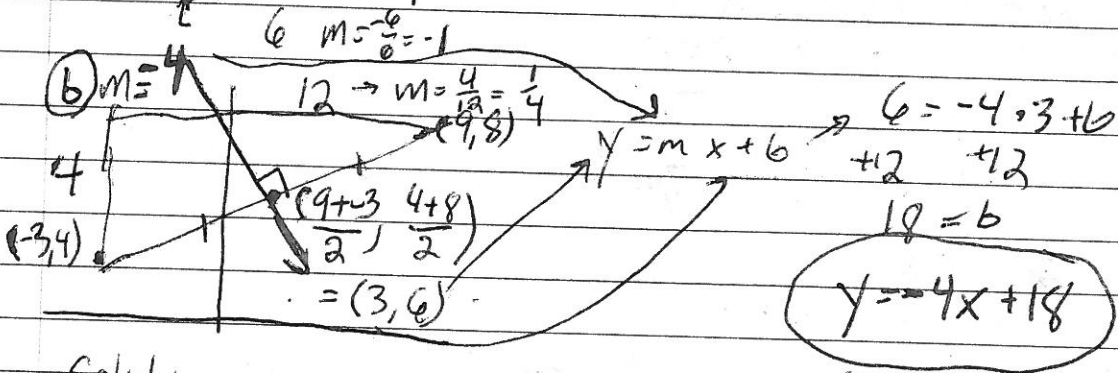
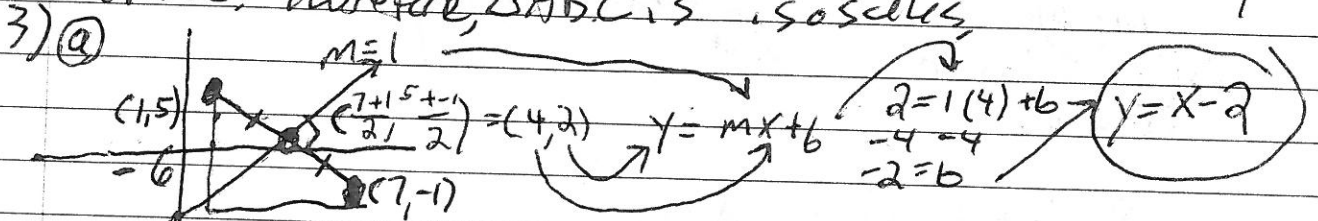


Unit 6 Review AK.

1) $12x - 5 = 7x + 15$ Perpendicular Bisector Theorem
 $5x = 20$
 $x = 4$

2) Yes. $BD = CD$ $m\angle BDA = m\angle CDA = 90^\circ$ given, $AD = AD$ by the reflexive property. $\triangle BDA \cong \triangle CDA$ by SAS. $AB = AC$ by CPCTC. Therefore, $\triangle ABC$ is isosceles.



Solutions on graph paper.

- 4) a) $(-4, 9)$ b) $(5.5, -6)$ c) $(19, -17)$

5) a) $2x + 7 = 4y + 6$ $3x + 1 = y + 5$
 $4x + 14 = 4y + 6$ $3x - y = 4$
 $4x - 4y = -8$
 $-12x + 4y = -16$ $\leftarrow x = 4$
 $-8x = -24$
 $x = 3 \rightarrow 3(3) = y + 4 \rightarrow y = 4$
 $(3, 4)$
 $8 = y$

b) $13 - x = 11 \rightarrow x = 2 \rightarrow 13 - 2 = y - 8 \rightarrow y = 17$ $(2, 17)$

c) $-x + y = 12$ $11y - x = 12$
 $-x + 11y = 12$
 $12y = 24 \rightarrow y = 2$
 $x + 2 = 12$
 $x = 10$
 $(10, 2)$

6) S

D is on bisector of $\angle ABC$
 $\overline{DB} \perp \overline{AB}$, $\overline{DC} \perp \overline{AC}$
 $m\angle DBA = m\angle DCA = 90^\circ$
 $\angle BAD \cong \angle CAD$
 $AD = AD$
 $\triangle DBA \cong \triangle DCA$
 $\overline{DB} \cong \overline{DC}$

R

Given

Definition of \perp
 Definition of Angle Bisector
 Reflexive Property
 AAS
 CPCTC

7) $2x + 1 = x + 3 \rightarrow x = 2$

8) $4x = x + 15 \rightarrow x = 5$

9) $CG = 8$
 $9 = 2(2x + 1) \rightarrow x = 7/4$

~~10~~ $y = 5$

$14.4 = 2 \cdot 8z \rightarrow z = \frac{14.4}{16}$

10) Graph Paper. (a) (2, 6) (b) (-2, 5)
 Skip C

11) (a) (0, -5)

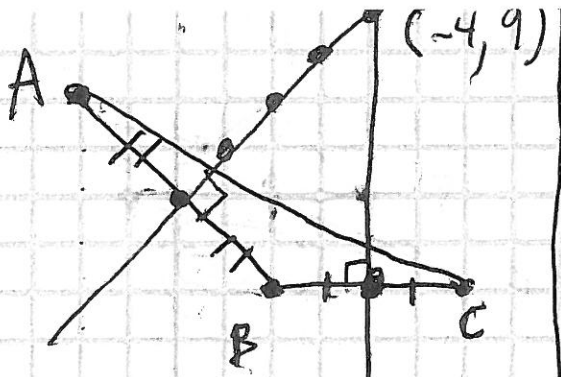
(b) $(-2/3, 5/3)$

12) $2(x + 15) = x + 21 \rightarrow x = -9$ $VW = 6$

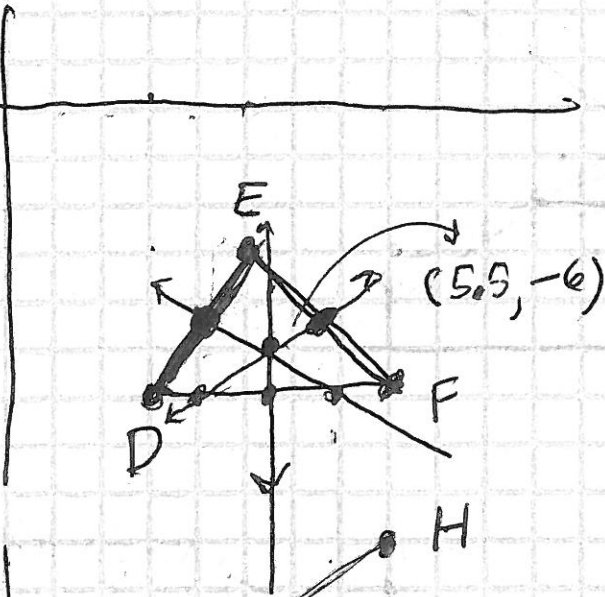
13) $2(x + 19) = x + 29 \rightarrow x = -9$

14) 17

4) a)



b)



c)

