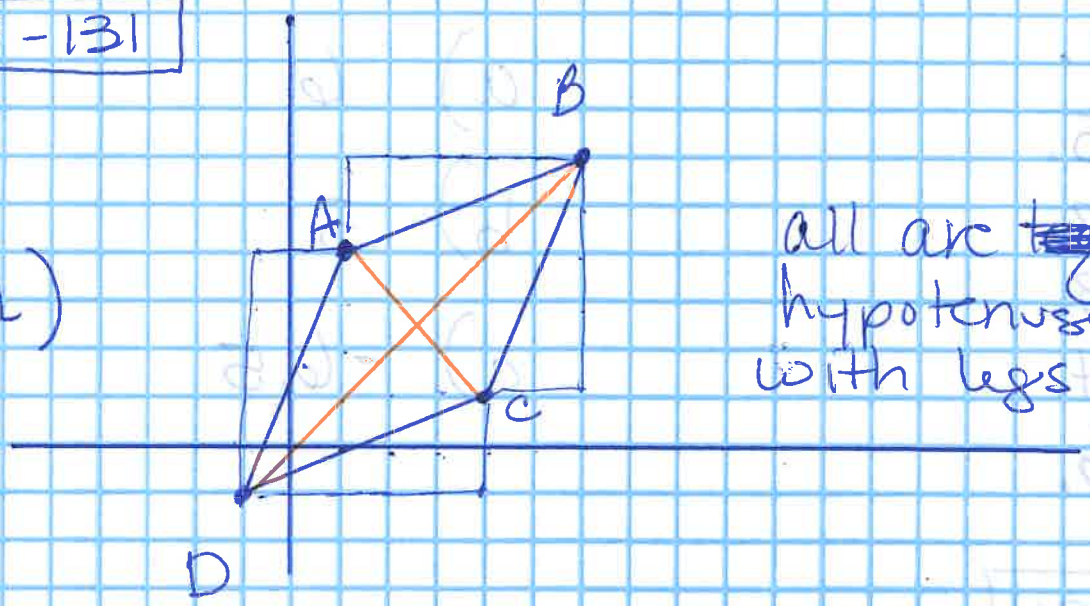
homework 7-131 to 7-137

$\boxed{7\text{-}131}$

a)



all are hypotenuses with legs 5 and 2

b) AC $\Rightarrow$ $m = -1$ $(1, 4)$

$y = 1x + b$

$4 = -1 + b$

$5 = b$

$y = -x + 5$

BD $\Rightarrow$ $m = 1$ $(-1, -1)$

$y = mx + b$

$-1 = 1(-1) + b$

$-1 = -1 + b$

$0 = b$

$y = x$

c) slopes are opposite reciprocals

$AC \perp BD$

7-132

1.
5.
2.
3.
4.
6.

7-133

a) 6

b) 3

c) -6.5

7-134

a)

Statement	Reason
1. $FG = IG$, $FH = JH$	1. Given
2. $\angle F = \angle F$	2. reflexive
3. $\frac{FI}{FG} = \frac{FJ}{FH} = 2$	3. proportions
4. $\triangle IFJ \sim \triangle GFH$	4. SAS ~

b) $\angle F = \angle F$; $\angle FGH = \angle I$; $\angle FHG = \angle J$

c) Yes because of the Midsegment Thm.

d) $2(4x-3) = 3x+14$

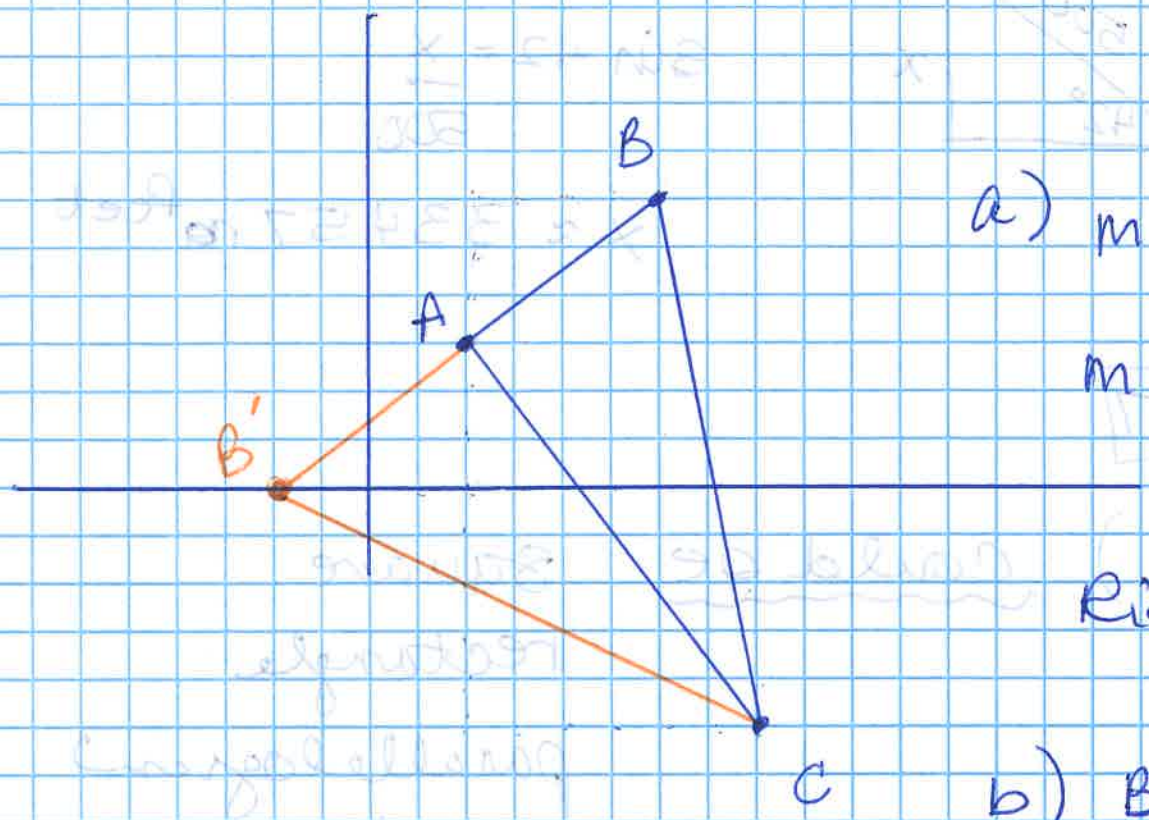
$8x - 6 = 3x + 14$

$5x = 20$

$x = 4$

$GH = 13$

7-135



a) m of AB $= \frac{3}{4}$

m of AC $= -\frac{8}{6}$

$= -\frac{4}{3}$

Right Δ

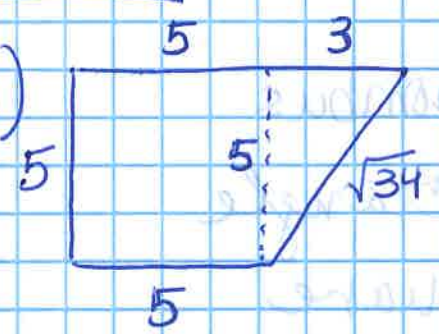
b) $B'(-2, 0)$

Isoscele Δ

$\overline{BC} = \overline{B'C}$

7-136

a)



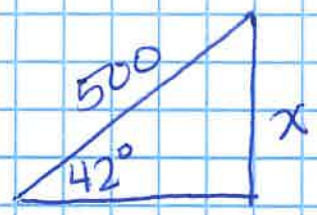
$P \approx 23.83$ ft

b) $\tan 35 = \frac{x}{10}$

$x \approx 7.00$ yds

c) $\cos^{-1}\left(\frac{60}{150}\right)$

$\theta \approx 66.42°$

d) 

$\sin 42 = \frac{x}{500}$

$x \approx 334.57$ ~~m~~ feet

$\boxed{7\text{-}137}$

a) could be square
rectangle
parallelogram
rhombus
isosceles trapezoid

b) must be - parallelogram

could be - rhombus
rectangle
square