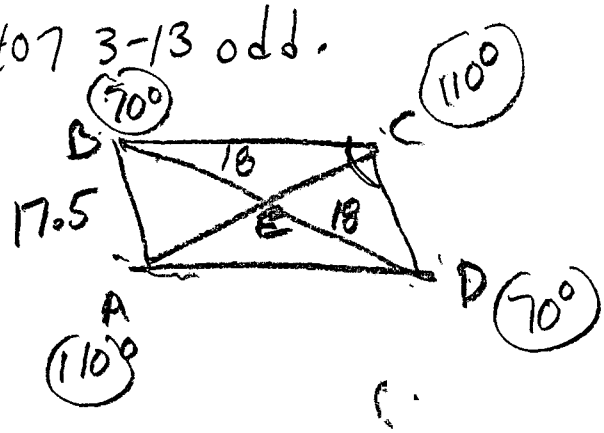
Geometry | Weds. 2-20-13 | Class Notes

Homework review.

Pg 407 3-13 odd.

(3)



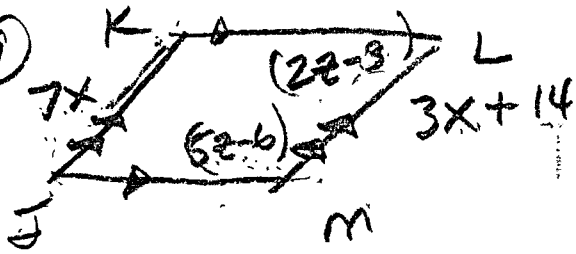
▱ABCD

BD? = 36

(5) BE? = 18

(7) m∠ADC = 70°

(9)



NOT KIDDING

JK = ?

$7x = 3x + 14$

$\frac{4x}{4} = \frac{14}{4} = \frac{7}{2}$

$\therefore JK \Rightarrow 7 \cdot \frac{7}{2} = \frac{49}{2} = 24.5$ $x = \frac{7}{2}$

(11) $m\angle L \Rightarrow (2z-3) + (5z-6) = 180$

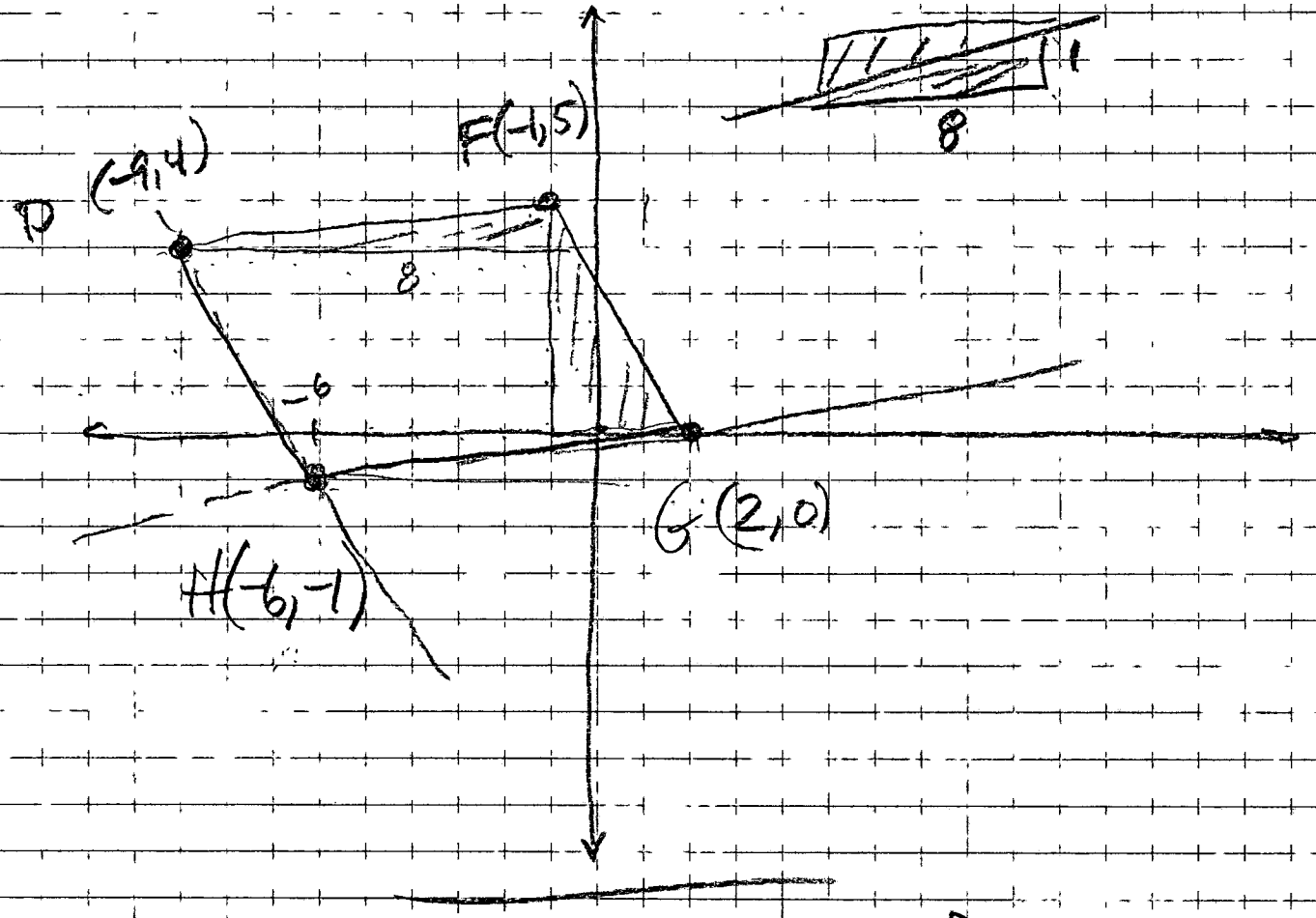
$7z = 189$

$z = 27$

$\therefore m\angle L = 2(27) - 3$

$= 51°$

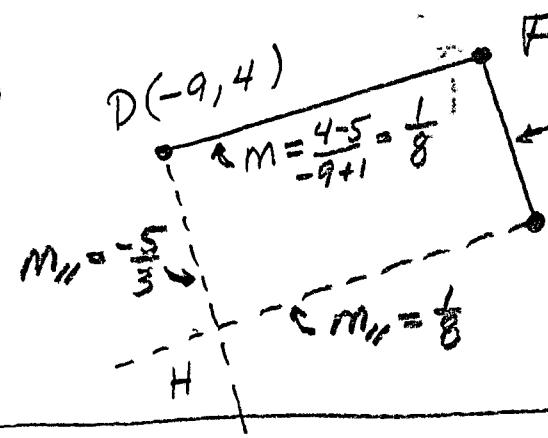
(B)



Counting grids for slope is easiest.

You can use algebra — see next page.

(13)



USING ALGEBRA INSTEAD OF COUNTING GRIDS. IT WORKS!!

EOL $\overline{GH}$ $\Rightarrow$ $y = mx + b$ using $G(2,0)$, $m = \frac{1}{8}$

$0 = \frac{1}{8}(2) + b$

$-\frac{1}{4} = b$ $\therefore$ $\overline{GH} \Rightarrow y = \frac{1}{8}x - \frac{1}{4}$

EOL $\overline{DH}$ $\Rightarrow$ $y = mx + b$ using $D(-9,4)$, $m = -\frac{5}{3}$

$4 = -\frac{5}{3}(-9) + b$

$4 = 15 + b$

$-11 = b$ $\therefore$ $\overline{DH} \Rightarrow y = -\frac{5}{3}x - 11$

SOLVE THIS SYSTEM OF EQUATIONS TO FIND INTERSECTION $\Rightarrow H(x,y)$

$\begin{cases} y = \frac{1}{8}x - \frac{1}{4} \\ y = -\frac{5}{3}x - 11 \end{cases}$ $\Rightarrow$ EBS

$-\frac{5}{3}x - 11 = \frac{1}{8}x - \frac{1}{4}$

$-40x - 11 \cdot 24 = 3x - 6$

$-264 + 6 = 43x$

$\frac{-258}{43} = \frac{43x}{43}$

$-6 = x$

$\therefore y = -\frac{5}{3}(-6) - 11$

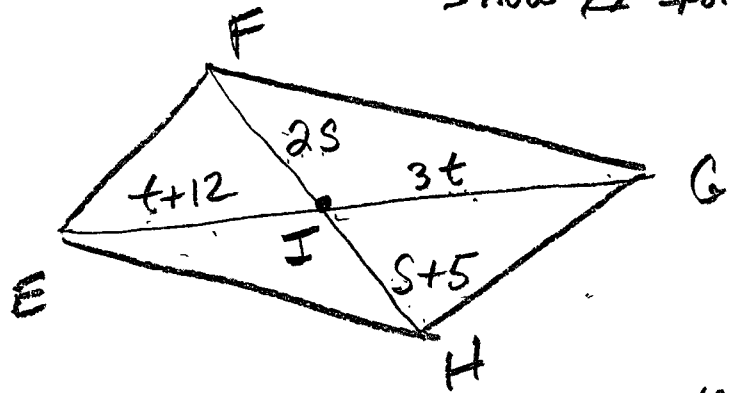
$y = 10 - 11$

$y = -1$

$H(-6, -1)$

Pg 414 #1-7 SHOW ▱ for $s=5$, $t=6$

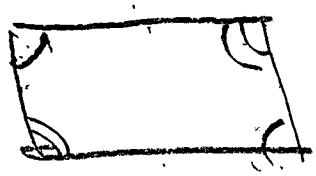
(1)



$2s = 10$ } BISECT $\quad$ $t+12 = 18$ } BISECT.
$s+5 = 10$ } $\quad$ $3(6) = 18$ }

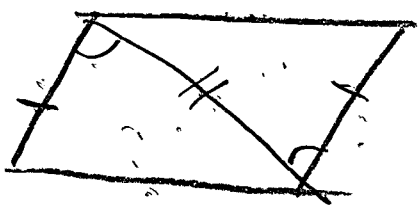
Since DIAGONALS BISECT EACH OTHER, ▱

(3)



Yes, ▱, OPP Angles are $\cong$

(5)

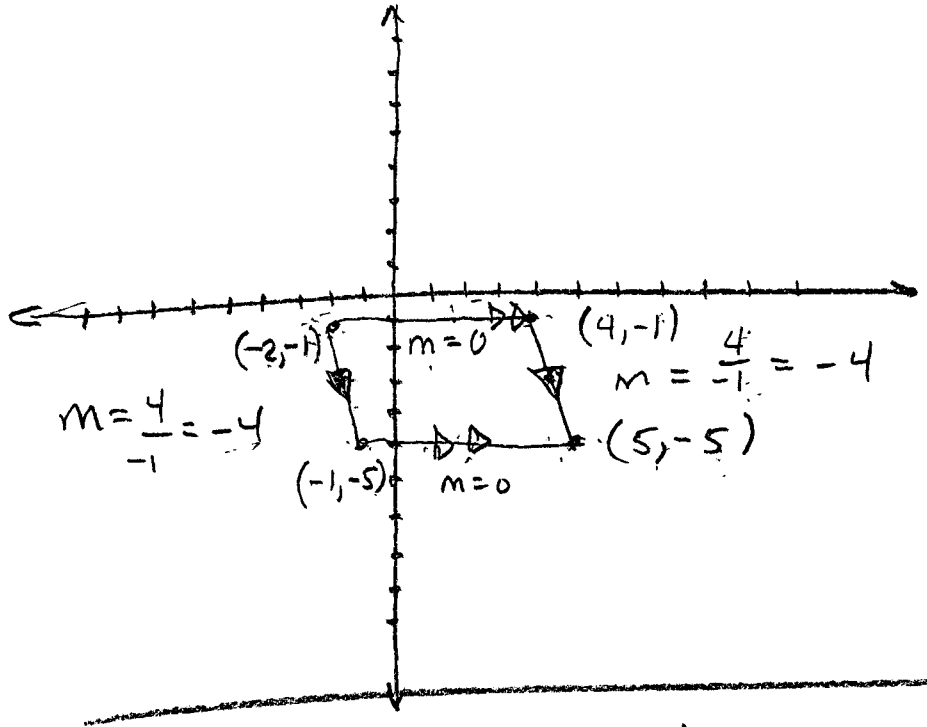


$\triangle \cong$ SAS CPCTC

$\therefore$ OPP SIDES are $\cong$

$\therefore$ ▱

P. 414
(7) $R(-1,-5)$, $S(-2,-1)$, $T(4,-1)$, $U(5,-5)$ ▱?



Since BOTH pairs of sides are //, it is a ▱

Pg 424
#1 Equilateral quadrilateral -
= RHOMBUS

Equiangular quadrilateral
= RECTANGLE

regular quadrilateral.
= SQUARE

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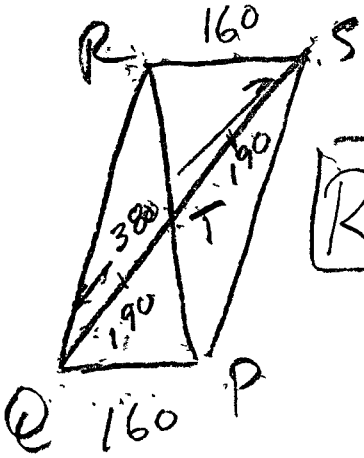
(3)

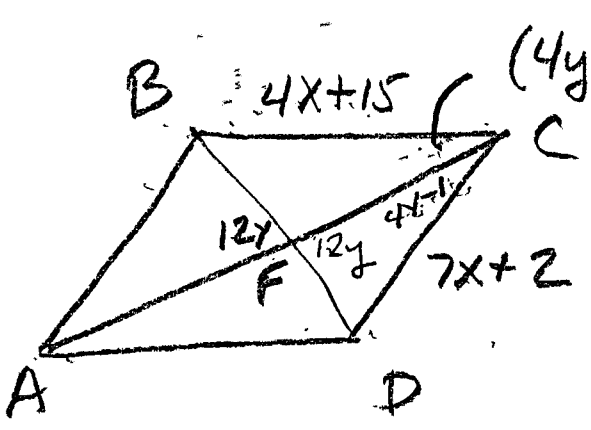


PQ = ? 160

RECTANGLE

(5) PR = ? 380

(7.)



RHOMBUS

$m\angle ABC = ?$

$\therefore 12y = 90$

$y = \frac{90}{12} = \frac{45}{6}$

$y = \frac{15}{2}$

$\therefore 4\left(\frac{15}{2}\right) - 1$

$= 29 \therefore \angle C = 58^\circ$

$m\angle ABC = 122^\circ$