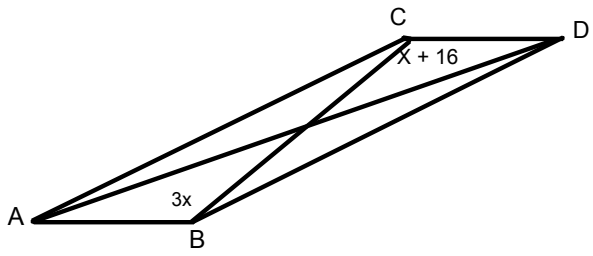
Geometry Chapter 8 Review

1.) Find the sum of the measures of the interior angles of a regular 32-gon.

2.) Use the parallelogram ABCD to find angle BCD.

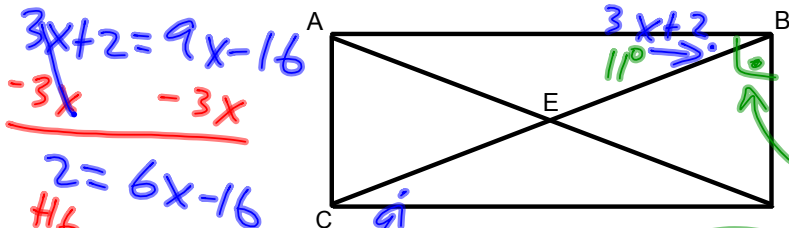


3.) The length of the median of a trapezoid is 20 feet. If the bases have lengths 2x+6 and 4x-2, find x

4.) Find the measure of each exterior angle of a regular 40-gon.

$\frac{360}{40} = 9^\circ$

5.) ABCD is a rectangle. If angle CBA = 3x + 2 and angle BCD = 9x - 16, Find angle CBD.



$3x+2=9x-16$

$-3x \quad -3x$

$2=6x-16$

$+16 \quad +16$

$\frac{18}{6}=\frac{6x}{6}$

$3=x$

$3(3)+2=11$

$3x+2$

11°

90

-11

79°

$m\angle CBD=79^\circ$

$9x-16$

6.) FOIL the following: (6x + 2)(2x - 9)

$6x(2x)+6x(-9)+2(2x)+2(-9)$

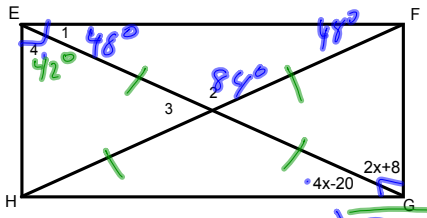
$12x^2+-54x+4x+-18$

$12x^2-50x-18$

Factor the following: $x^2 + 6x - 27$

$(x+9)(x-3)$

7.) Given the rectangle EFGH, find x, then find angles 1, 2, 3, and 4.



(1) $4x-20+2x+8=90$

$6x-12=90$

$+12 \quad +12$

$\frac{6x}{6}=\frac{102}{6}$

$x=17$

(2) $4(17)-20$

$68-20$

$\angle 1=48^\circ$

(3) $90-48$

$\angle 4=42^\circ$

(4) $48+48=96$ $\quad 180-96=84$

$\angle 2=84$

(5) $180-84$

$\angle 3=96^\circ$