Chapter 13-1 to 13-4 Review Problems

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supplement of an angle $(180-x)$ $180-67=113°$

complement of an angle $(90-x)$ $90-67=23°$

$$2(180-x)-5(90-x)=110$$

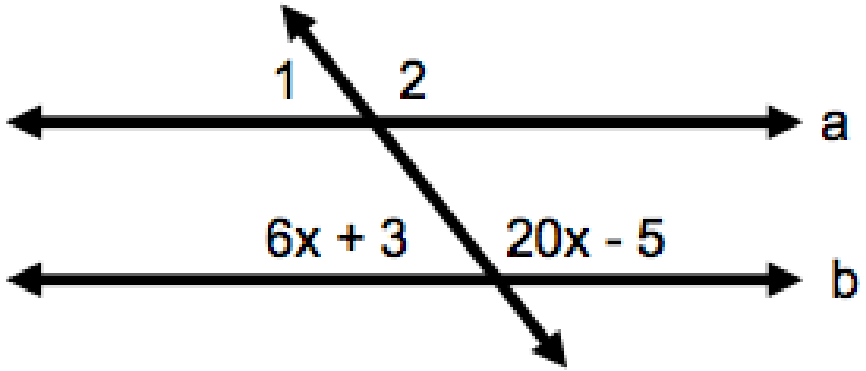
$$360-2x-450+5x=110$$

$$3x-90=110$$

$$3x=200$$

$$x\approx 67°$$

Find the measures of angles 1 and 2 given lines a and b are parallel.



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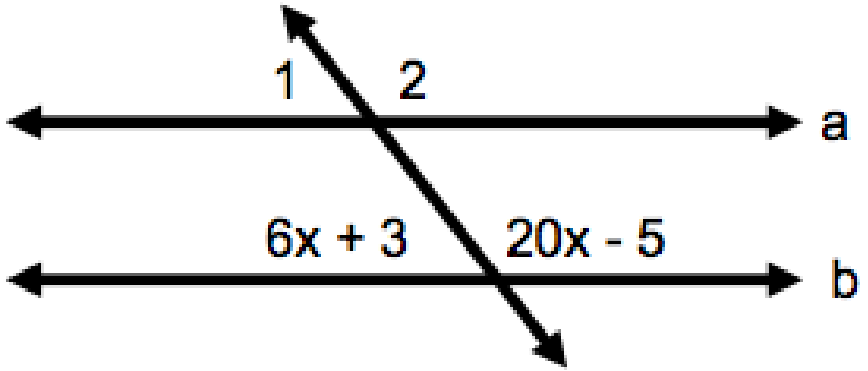


Supplementary ∠s

$6x+3+20x-5=180$

$26x-2=180$

$26x=182$

$x=7$

Corresponding ∠s

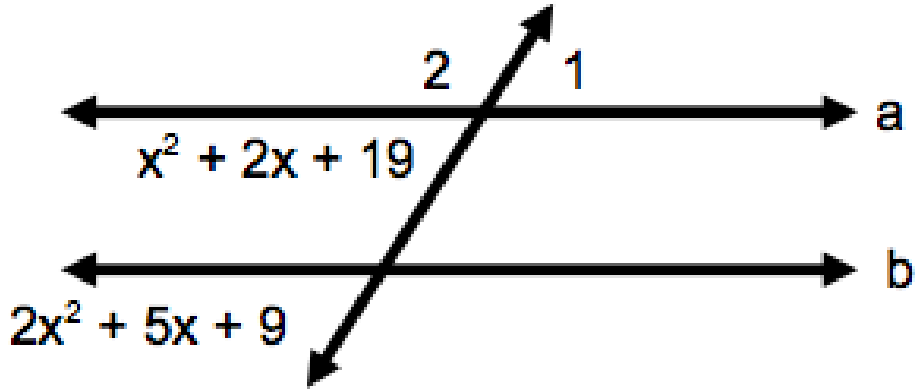
$\angle 1 = 6x+3 = 6(7)+3 = 45^\circ$

$\angle 2 = 20x-5 = 20(7)-5 = 135^\circ$

check

$45+135=180^\circ$

Find the measures of angles 1 and 2 given lines a and b are parallel.



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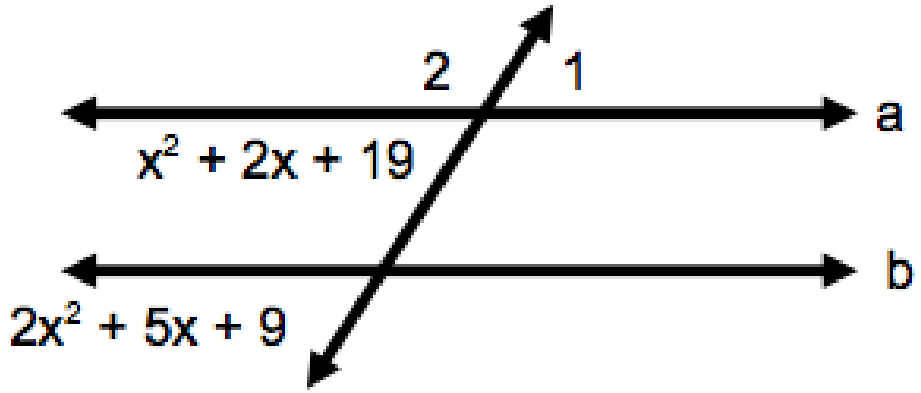


Corresponding ∠s

$2x^2+5x+9 = x^2+2x+19$

$x^2+3x-10 = 0$

$(x+5)(x-2)=0$

$x=-5$ or 2

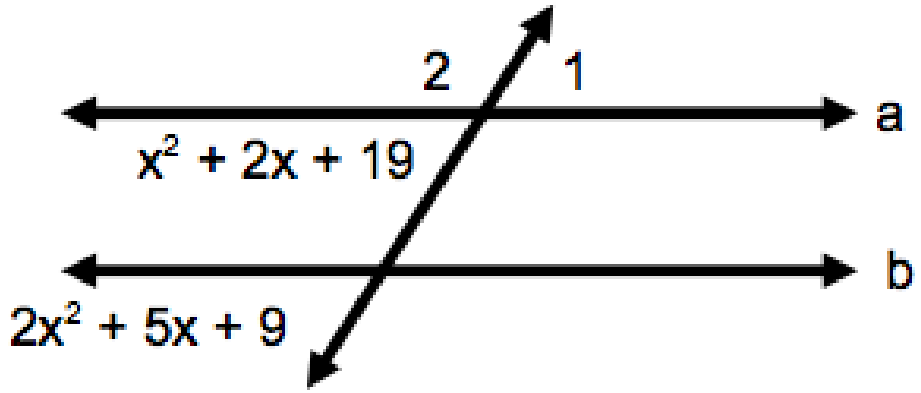
Check both

if $x=-5$, then 34°

∠1 is 34°, vertical ∠s or alt. ext. ∠s

∠2 is 146°, supplementary ∠s

Find the measures of angles 1 and 2 given lines a and b are parallel.



Corresponding ∠s

$2x^2+5x+9 = x^2+2x+19$

$x^2+3x-10 = 0$

$(x+5)(x-2)=0$

$x=-5$ or 2

Check both

if $x = 2$, then 27°

∠1 is 27°, vertical ∠s or alt. ext. ∠s

∠2 is 153°, supplementary ∠s