



mathématiques 10e année

le mercredi 29 novembre 2023

Mme Barton

mai 30-10:05

Géométrie, Mesure, Finances 10

But: Géométrie - G5

Démontrer sa compréhension des angles, y compris les angles aigus, droits, obtus, plats et réflexes en : dessinant, répliquant et construisant, divisant en deux parties égales et en résolvant des problèmes.

mai 31-08:43

Géométrie, Mesure, Finances 10

But: Géométrie - G4

Résoudre des problèmes portant
sur des lignes parallèles,
perpendiculaires et transversales
et sur les paires d'angles formés
entre elles.

mai 31-08:43

**Les angles
et
les droites**

mai 30-10:06

Les angles et les droites

Vocabulaire nécessaire

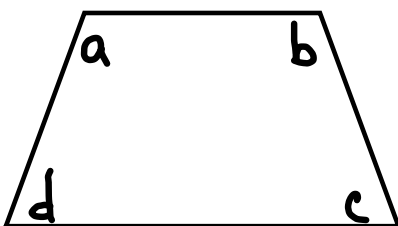
mai 30-10:06

La somme des angles
d'un triangle est 180 degrés.



$$a + b + c = 180^\circ$$

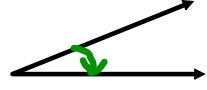

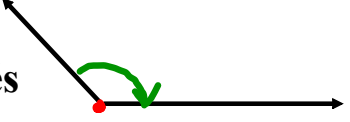

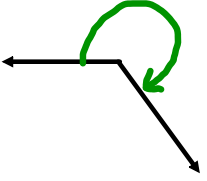
La somme des angles
d'un quadrilatère est 360 degrés.



$$a + b + c + d = 360^\circ$$

mai 28-16:26

Les angles

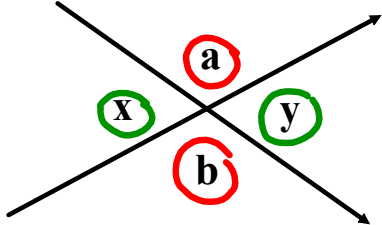
<u>Type d'angle</u>	<u>Mesure</u>	<u>Exemple</u>
angle aigu	entre 0 et 90 degrés	
angle droit	90 degrés	
angle obtus	entre 90 et 180 degrés	
angle plat	180 degrés	
angle rentrant (ou angle réflexe)	entre 180 et 360 degrés	

mai 23-12:20

Les angles

angles opposés

les angles opposés sont toujours égaux



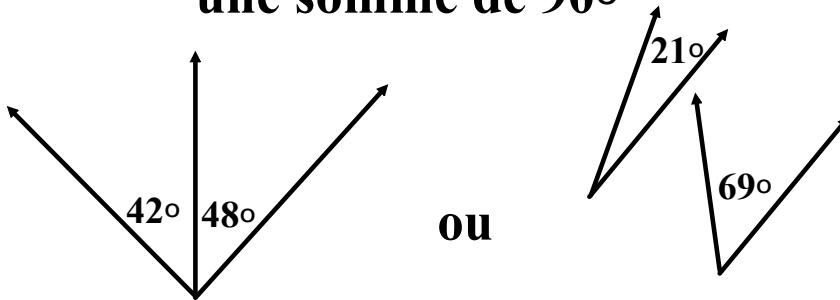
angle x = angle y

angle a = angle b

mai 23-19:35

Les angles
angles complémentaires

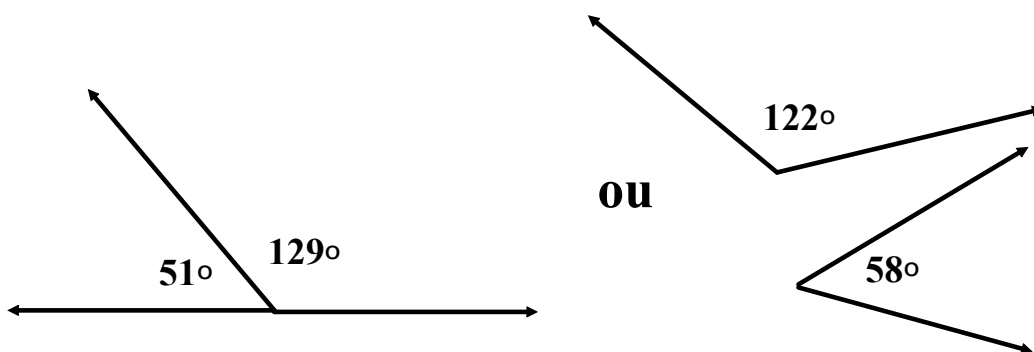
deux angles qui ont
une somme de 90°



mai 23-19:45

Les angles
angles supplémentaires

deux angles qui ont
une somme de 180°

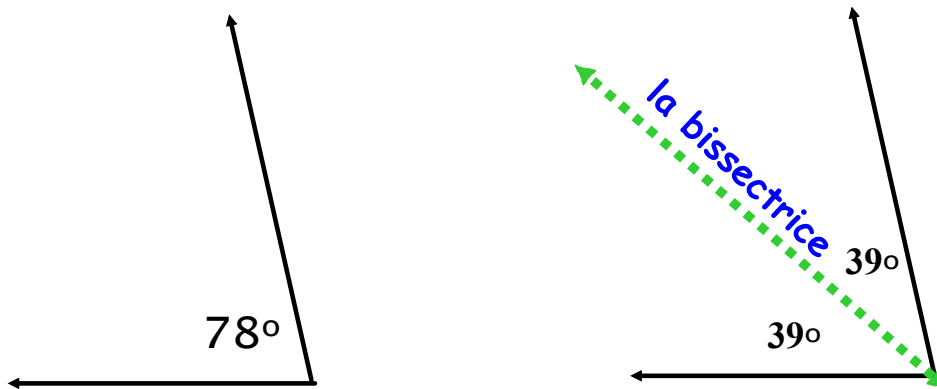


mai 23-19:51

Les angles

la bissectrice d'un angle

segment de droite qui sépare un angle en
deux parties égales



mai 23-19:51

Exercices

Les angles

Page # 1

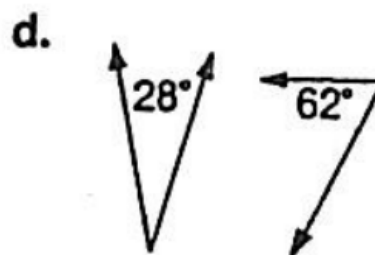
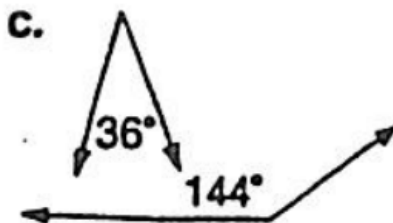
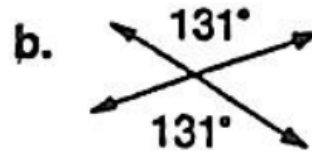
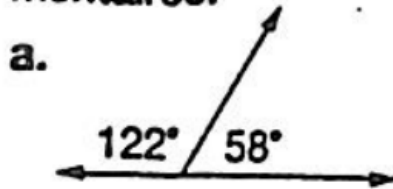
Questions

1 à 5

mai 30-10:13

ExercicesPAGE #1

- ① Classe les angles suivant qu'ils sont opposés, complémentaires ou supplémentaires.



nov. 25-09:18

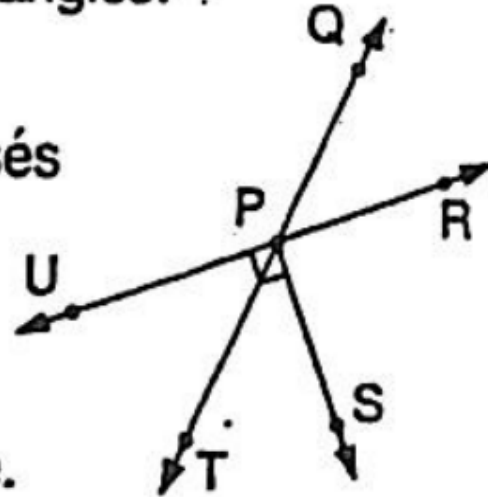
Réponses - Exercices - Page # 1**Question 1.**

- a) supplémentaires
 b) opposés
 c) supplémentaires
 d) complémentaires

mai 30-10:09

② Nomme l'angle ou les angles. .

- a. droit
- b. plat
- c. rentrant
- d. opposés
- e. complémentaires
- f. supplémentaires



③ Reproduis et complète.

nov. 25-09:19

Question 2.

- a) angle droit - \sphericalangle SPU ou \sphericalangle RPS
- b) angle plat - \sphericalangle UPR ou \sphericalangle QPT
- c) angle rentrant - \sphericalangle RPQ ou \sphericalangle SPR
- d) angles opposés - \sphericalangle QPR et \sphericalangle UPT
- e) angles complémentaires - \sphericalangle SPT et \sphericalangle TPU
- f) angles supplémentaires - \sphericalangle UPQ et \sphericalangle QPR
- \sphericalangle UPQ et \sphericalangle TPU

mai 30-10:11

③ Reproduis et complète.

	Angle	Complément ^(90°)	Supplément ^(180°)
a.	40°	50°	140°
b.	72°		
c.	16°		
d.	90°		
e.	100°		
f.		20°	
g.			120°
h.			45°

nov. 25-09:28

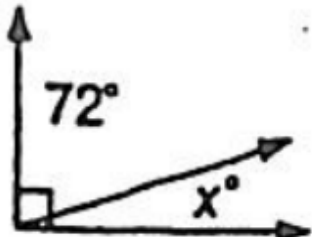
Question 3.

<u>Angle</u>	<u>Complément</u> ^{90°}	<u>Supplément</u> ^{180°}
40°	50°	140°
72°	18°	108°
16°	74°	164°
90°	0°	90°
100°	---	80°
70°	20°	110°
60°	30°	120°
135°	---	45°

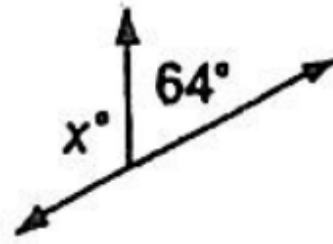
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4. Combien mesurent les angles inconnus ?

a.



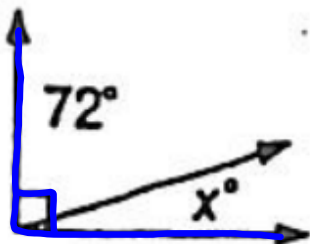
b.



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4. Combien mesurent les angles inconnus ?

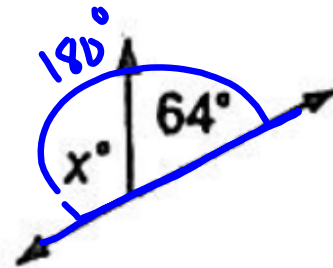
a.



$$x^\circ = 18^\circ$$

$$90^\circ - 72^\circ = 18^\circ$$

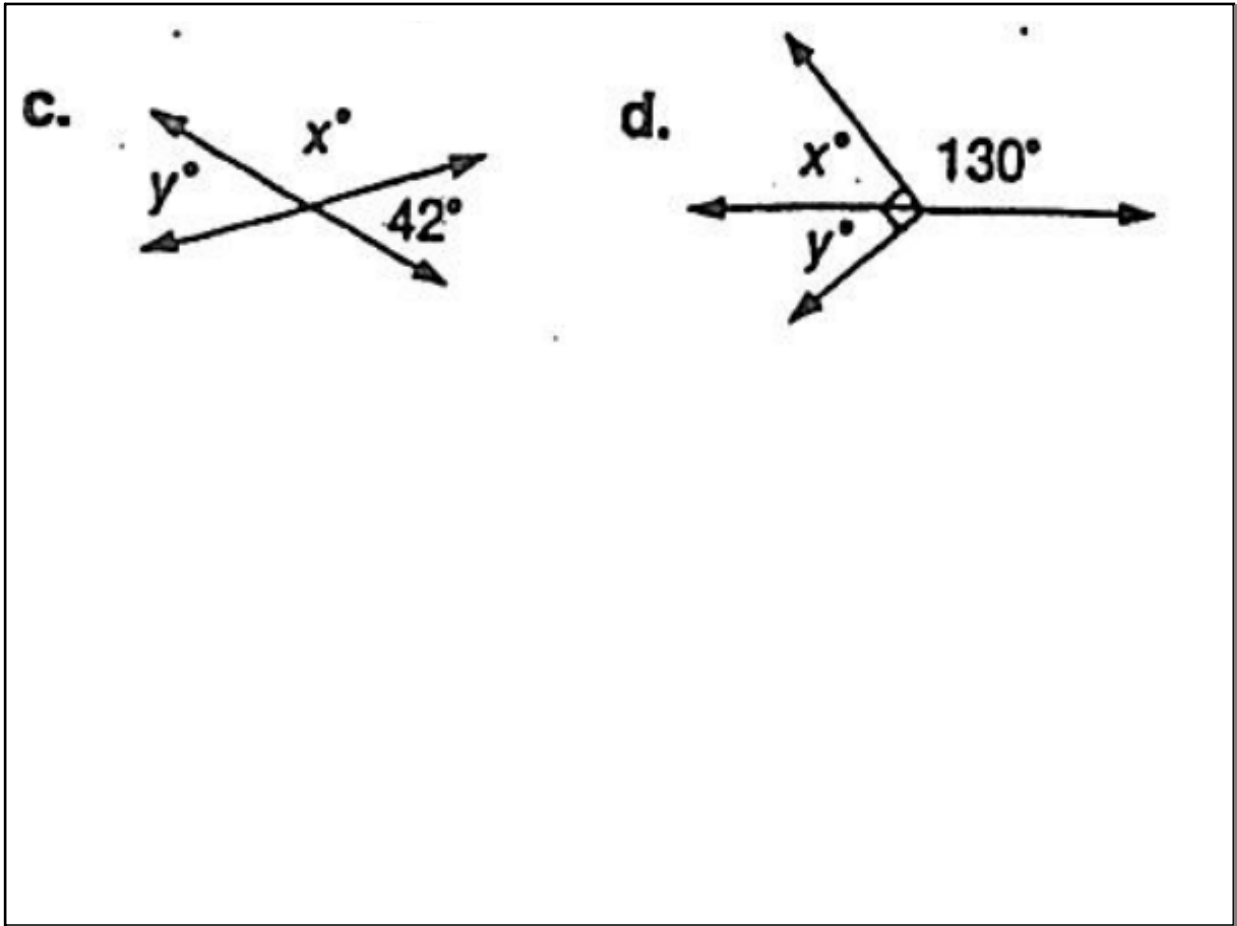
b.



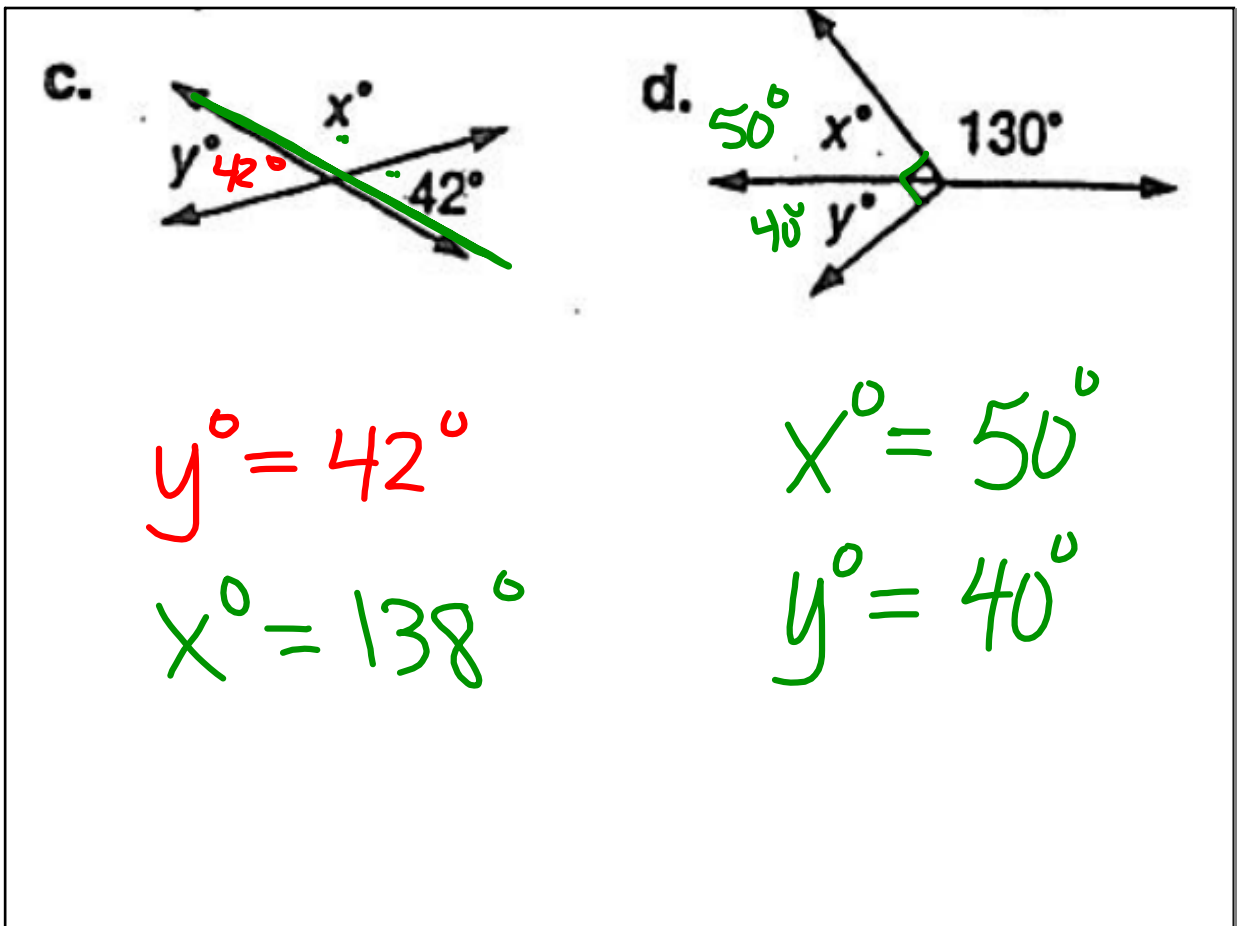
$$x^\circ = 116^\circ$$

$$180^\circ - 64^\circ = 116^\circ$$

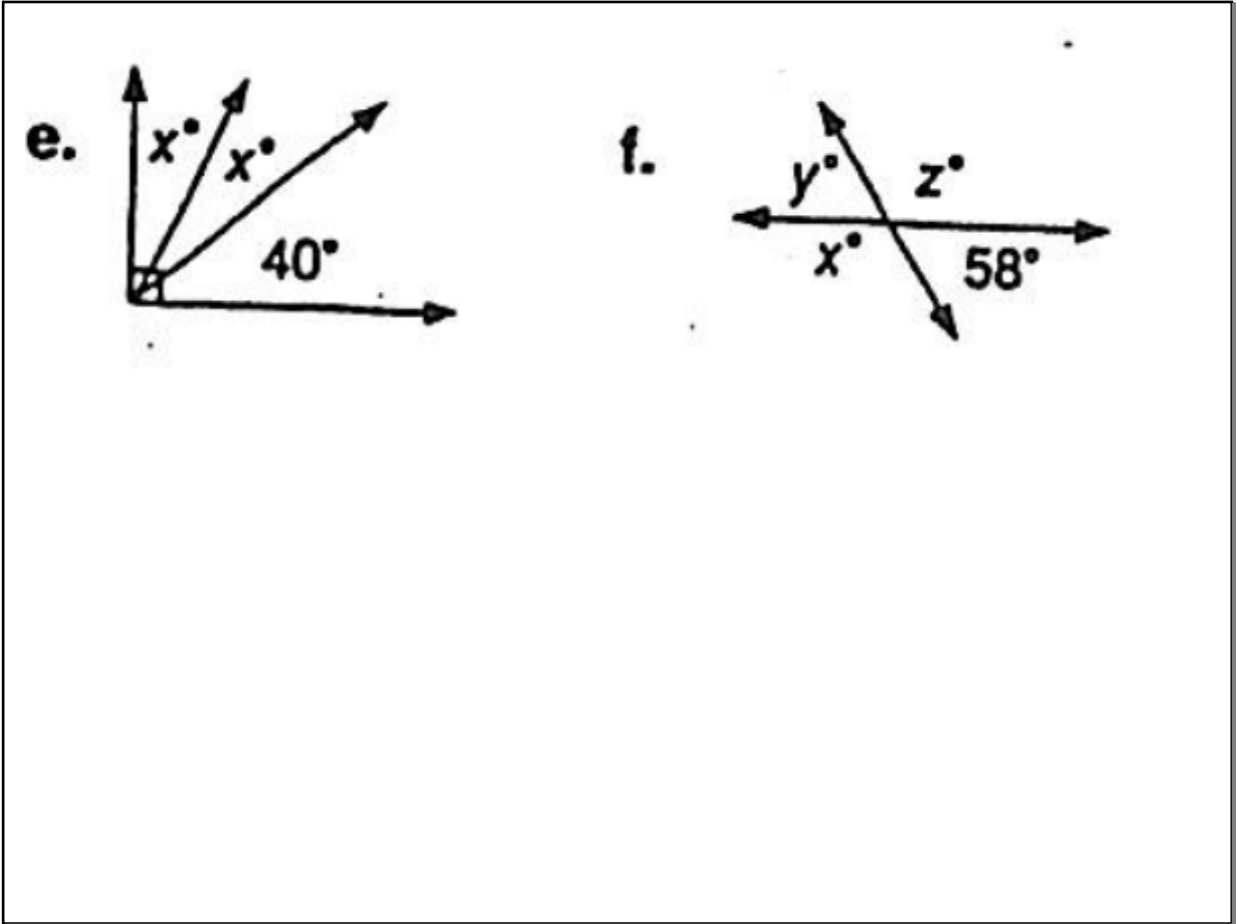
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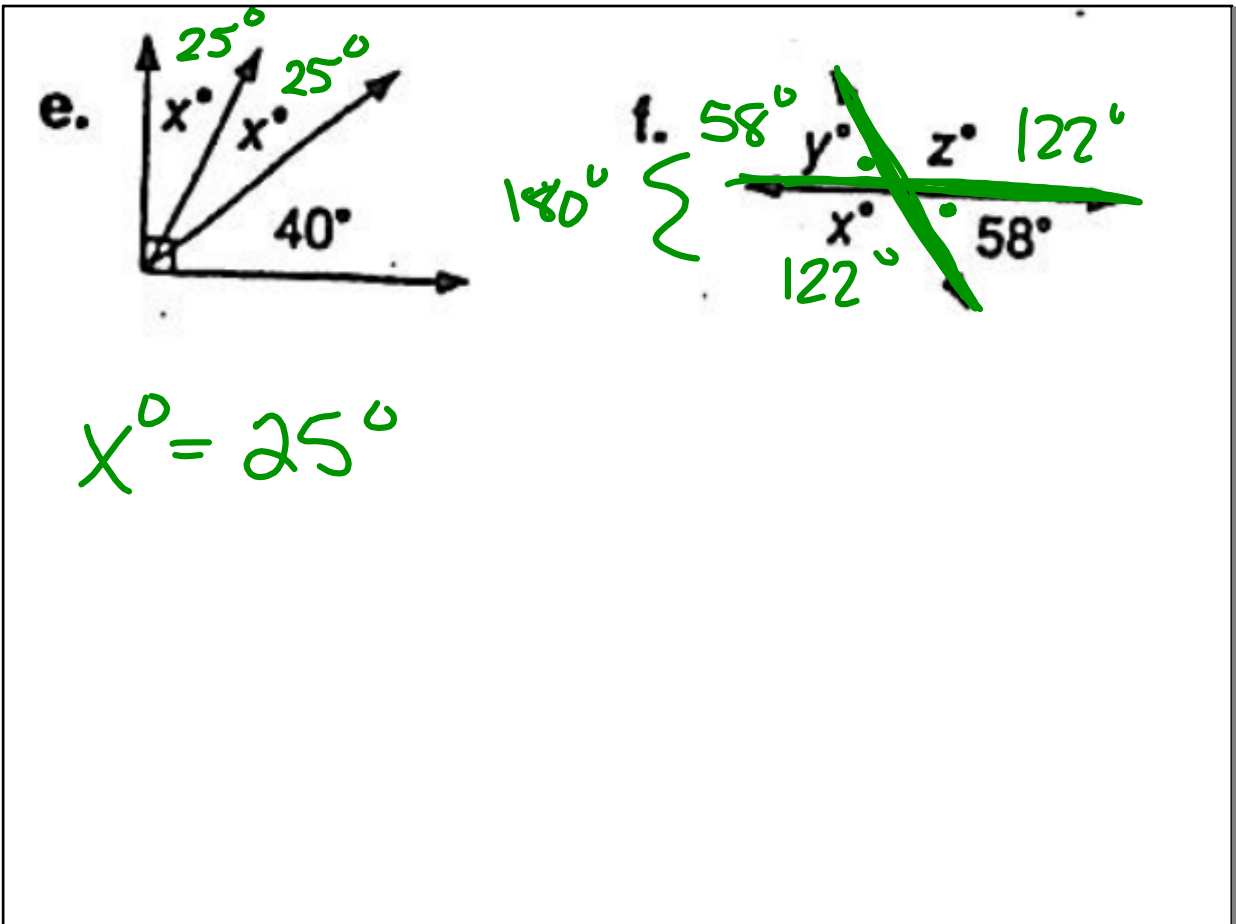
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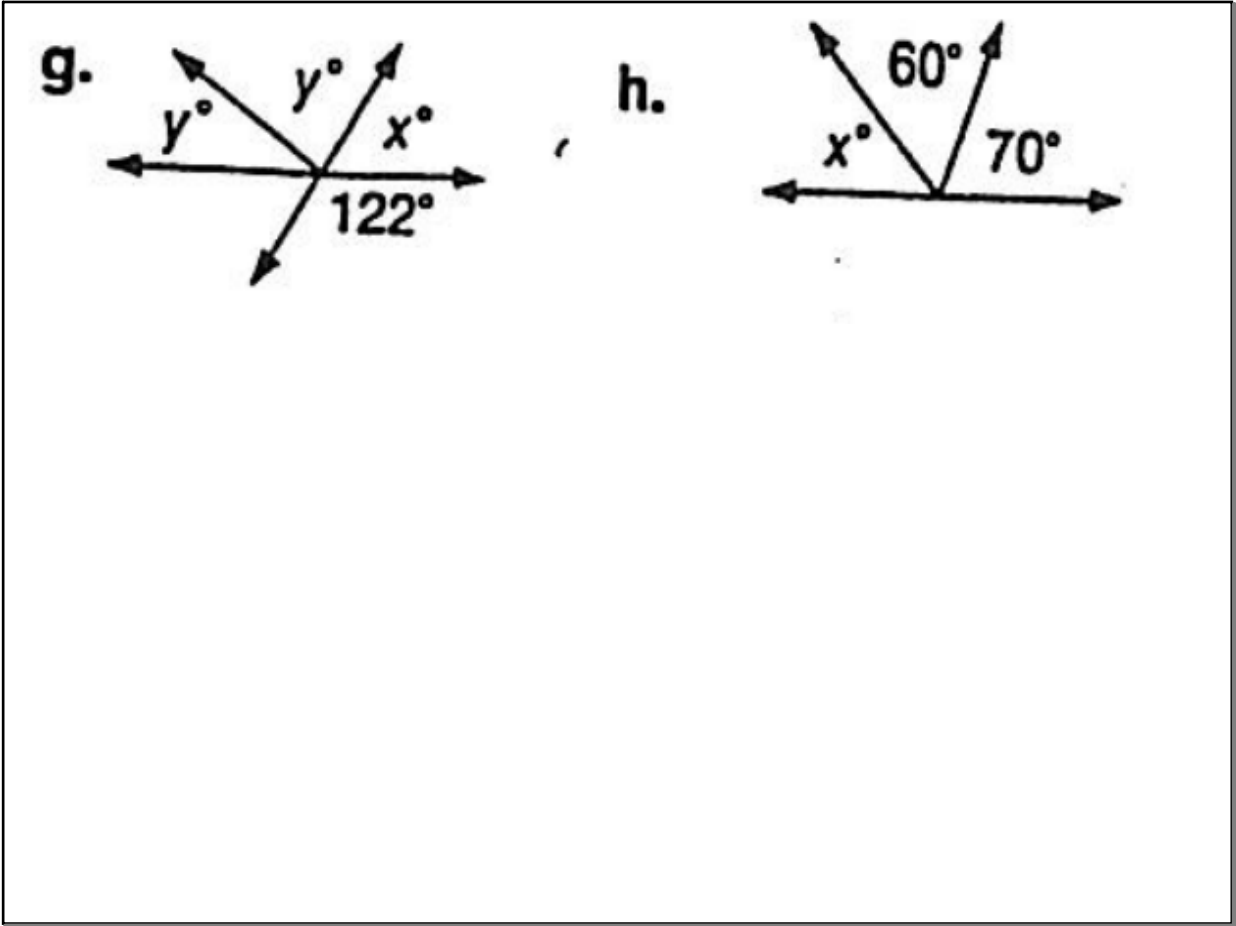
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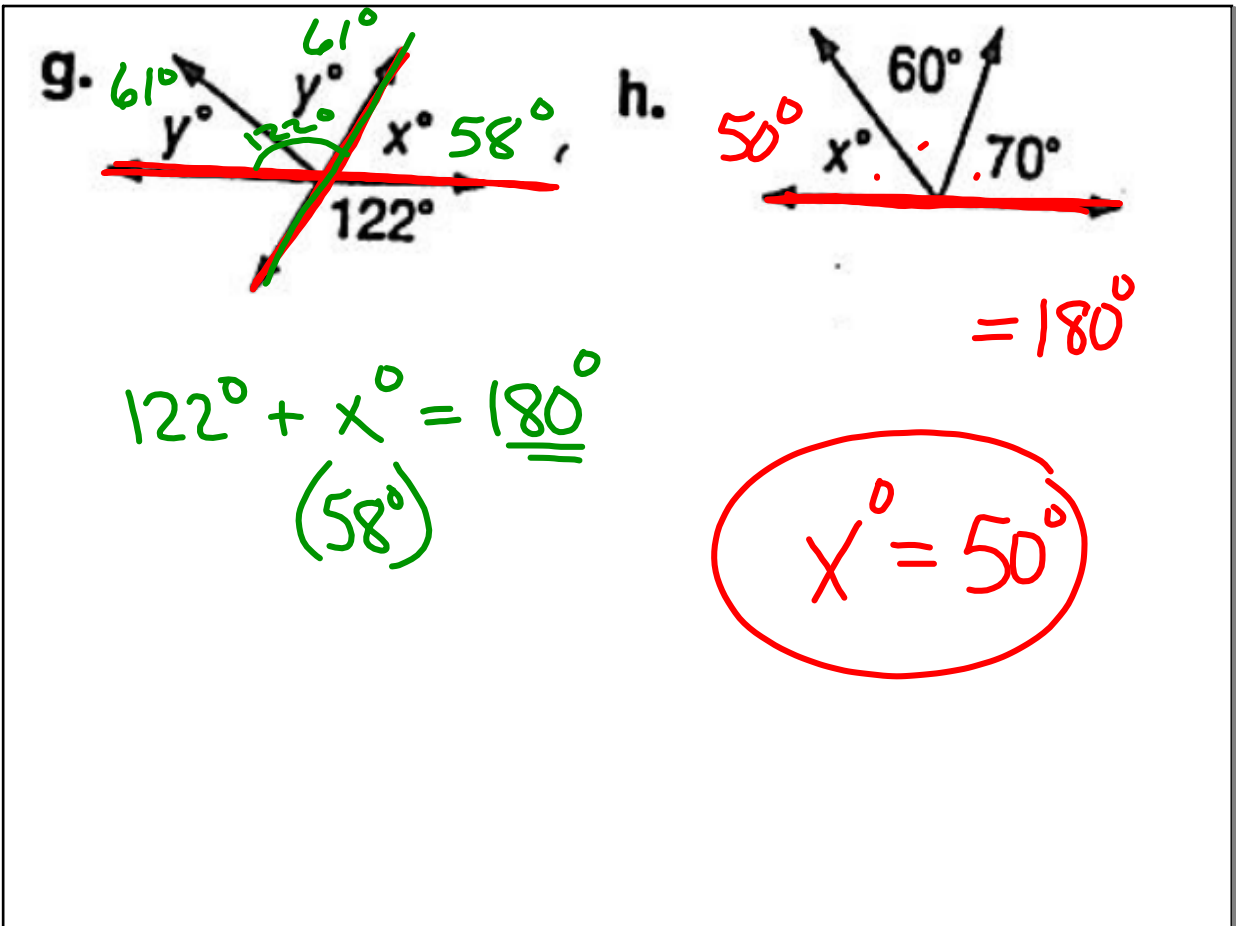
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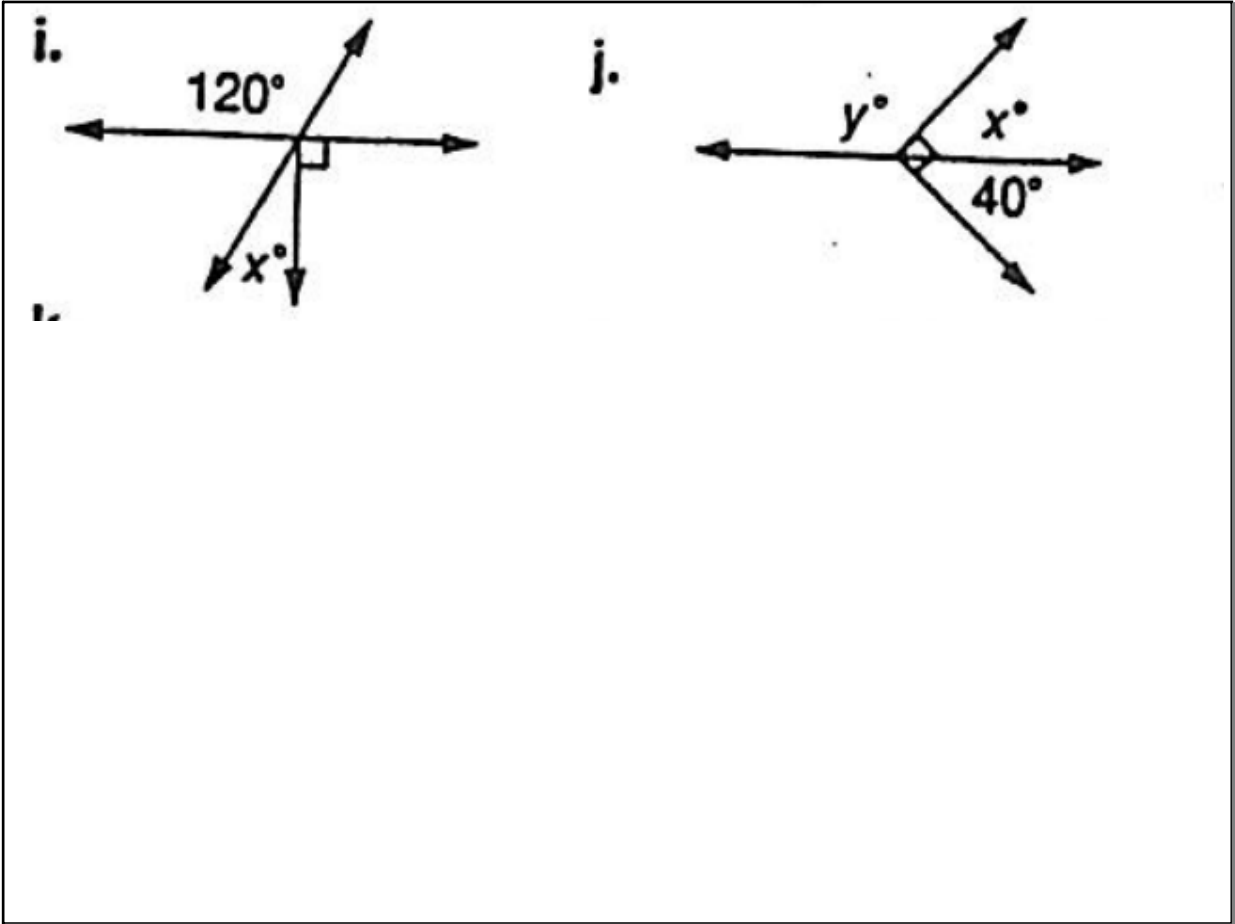
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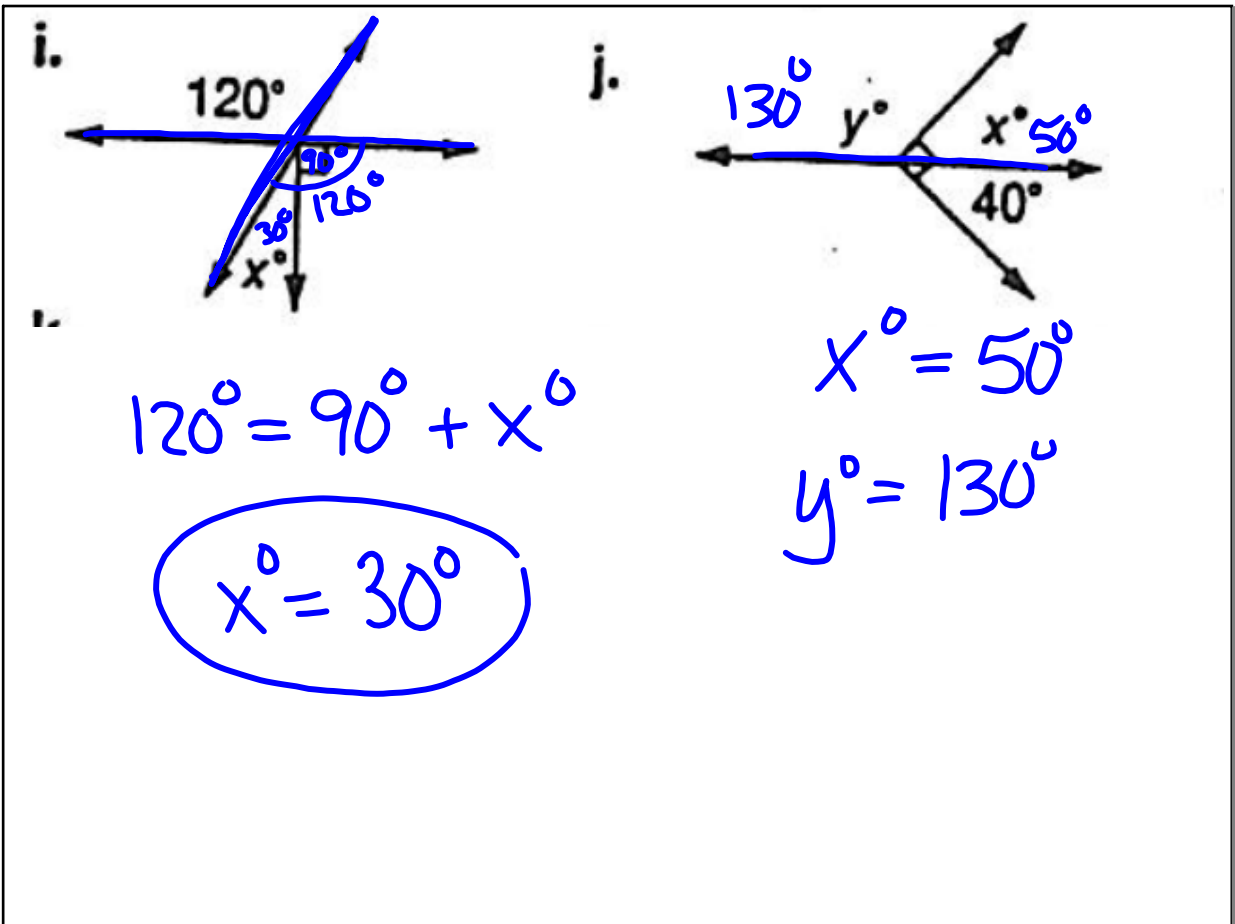
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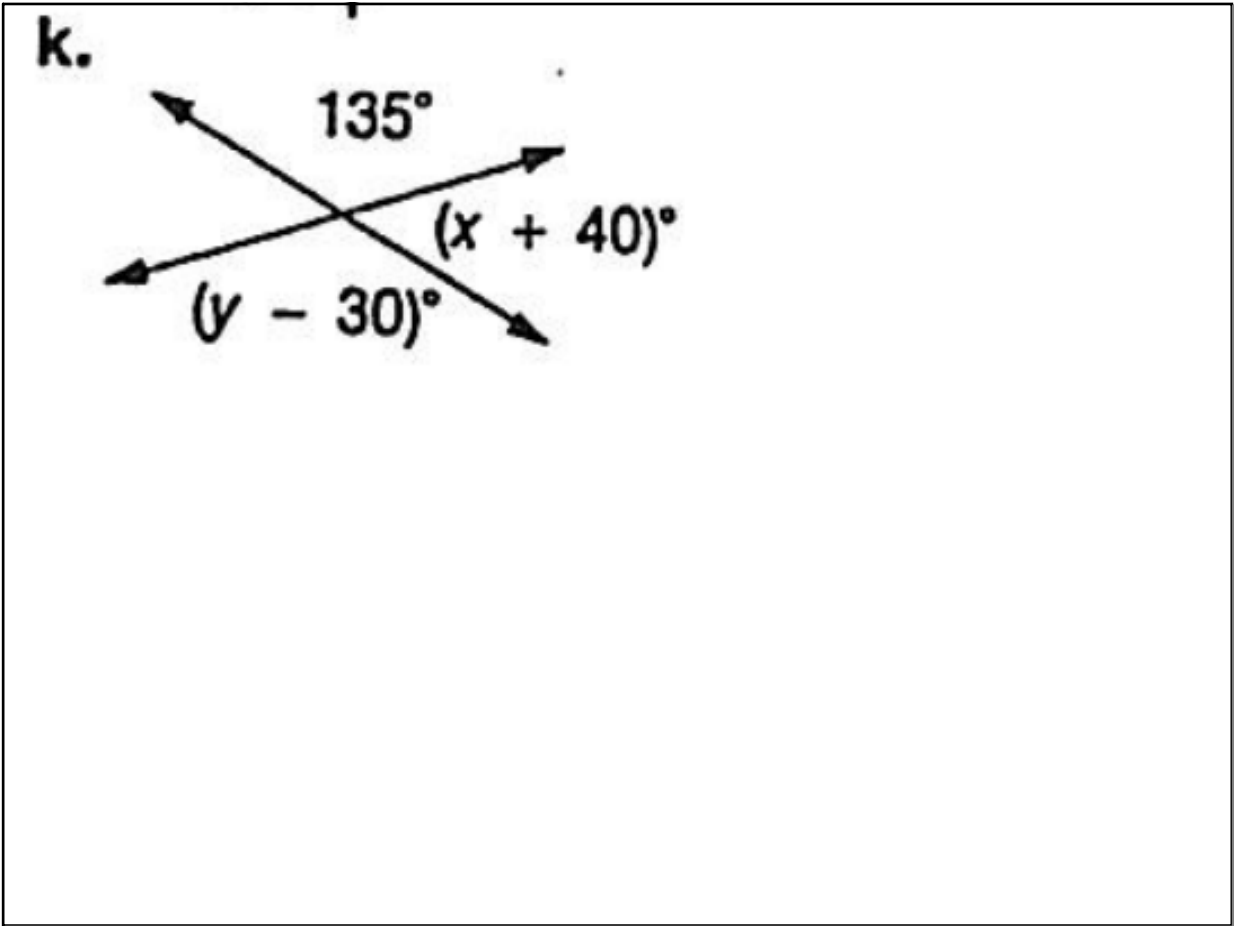
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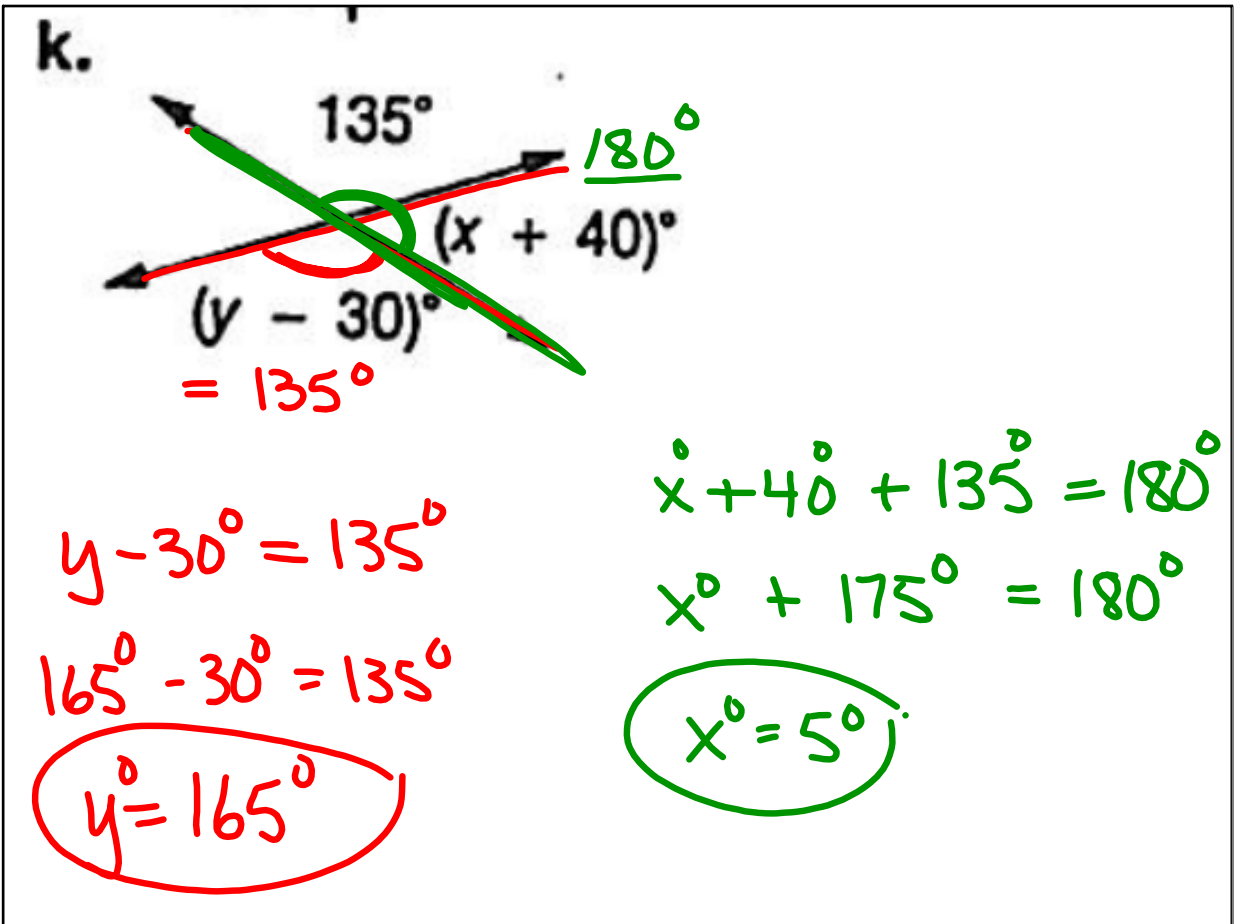
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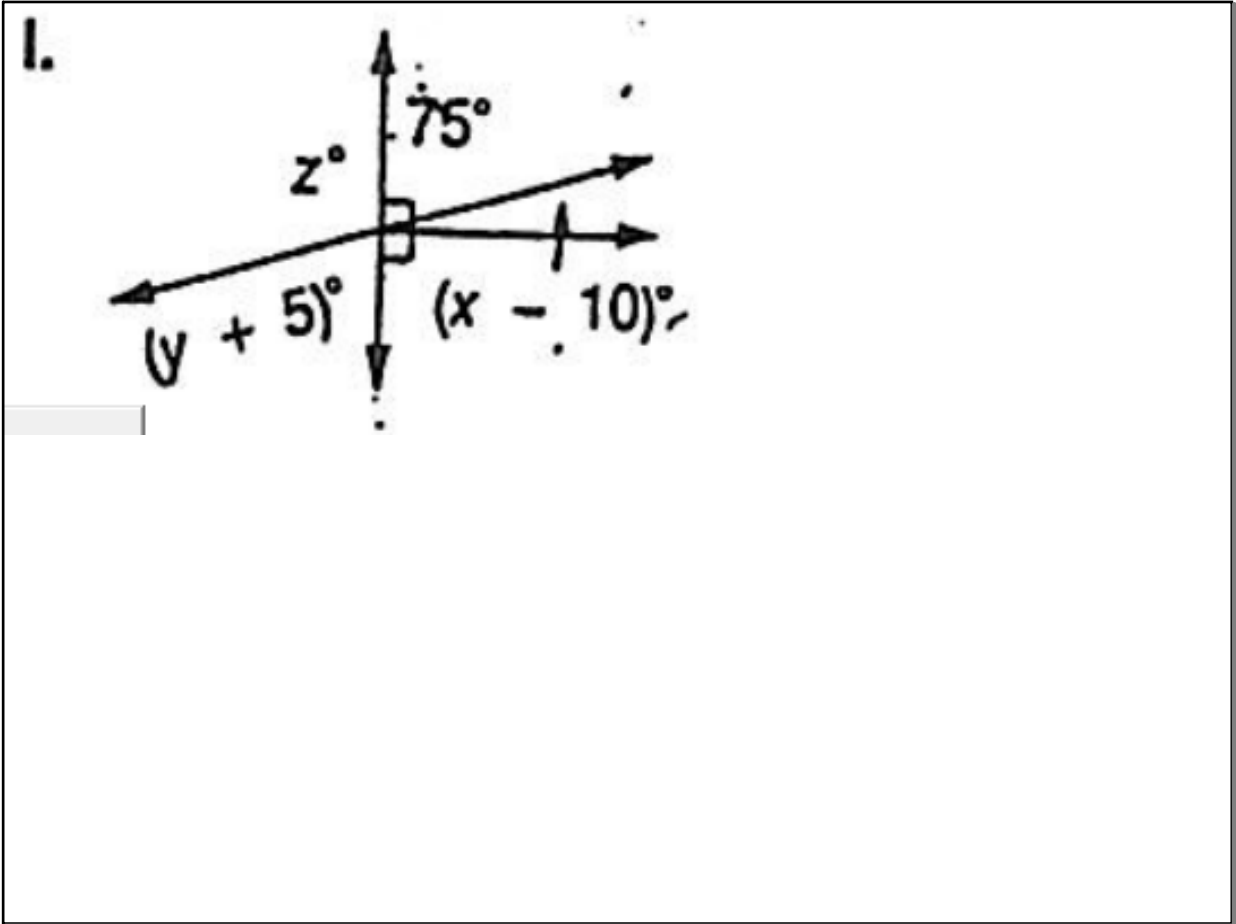
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nov. 25-09:31



nov. 25-09:31



nov. 25-09:31

i.

75°
 z°
 $(y + 5)^\circ$
 $(x - 10)^\circ$
 15°

$75 + \underline{15} = 90$

$x - 10 = 15$
 $x = 25^\circ$

$y + 5 = 75^\circ$
 $70^\circ + 5^\circ = 75^\circ$
 $y^\circ = 70^\circ$

$z^\circ = 105^\circ$

nov. 25-09:31

Question 4.

a) $x = 18^\circ$

b) $x = 116^\circ$

c) $x = 138^\circ$ et $y = 42^\circ$

d) $x = 50^\circ$ et $y = 40^\circ$

e) $x = 25^\circ$

f) $x = 122^\circ$ et $y = 58^\circ$ et $z = 122^\circ$

g) $x = 58^\circ$ et $y = 61^\circ$

h) $x = 50^\circ$

i) $x = 30^\circ$

j) $x = 50^\circ$ et $y = 130^\circ$

k) $x = 5^\circ$ et $y = 165^\circ$

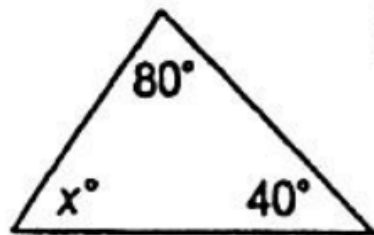
l) $x = 25^\circ$ et $y = 70^\circ$ et $z = 105^\circ$

nov. 25-09:55

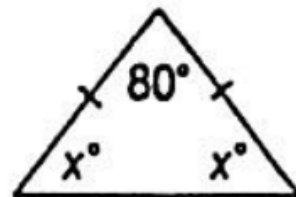
5.

Calcule la mesure de l'angle inconnu.

a.



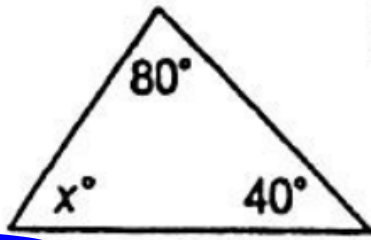
b.



nov. 25-09:31

5. Calcule la mesure de l'angle inconnu.

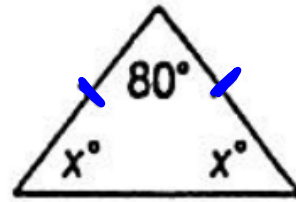
a.



$$x^\circ = 60^\circ$$

Total: 180°

b.



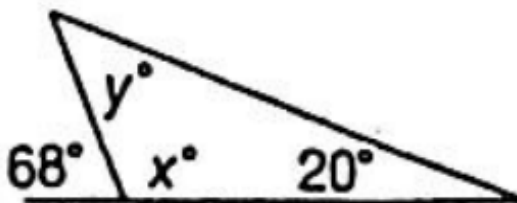
isocèles

$$x + x = 100^\circ$$
$$2x = 100$$

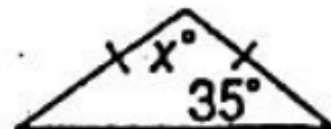
$$x = 50^\circ$$

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c.

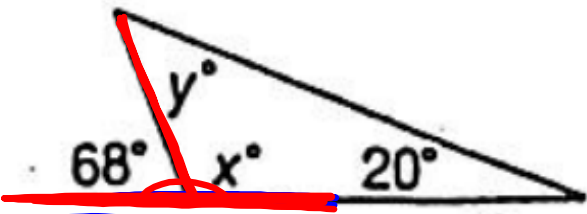


d.



nov. 25-09:33

c.



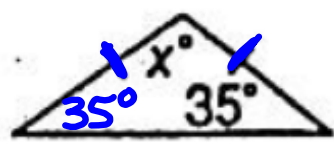
$x^\circ = 112^\circ$
 $+ 20$

 132

$y^\circ = 48^\circ$

d.

$35^\circ + 35^\circ + 110^\circ = 180^\circ$

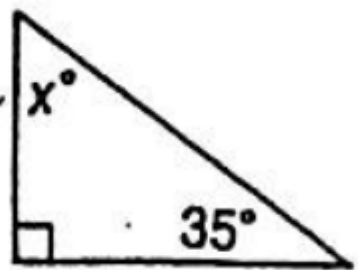


$x^\circ = 110^\circ$

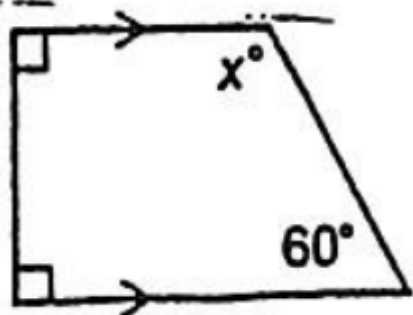
triangle isocèles

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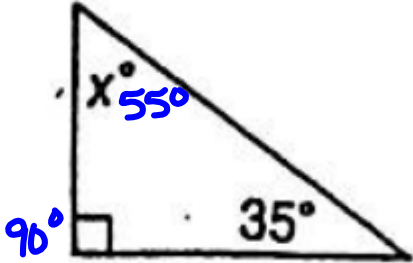
e.

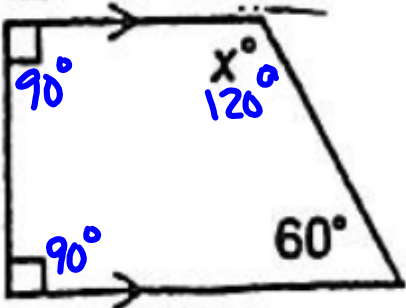


f.

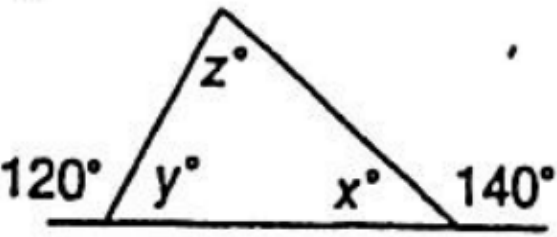


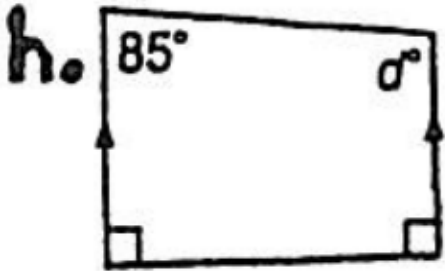
nov. 25-09:33

e.  $x^\circ = 55^\circ$
 $90^\circ + 35^\circ + 55^\circ = 180^\circ$

f.  Total: 360°
 $x^\circ = 120^\circ$
Quadrilatère

nov. 25-09:33

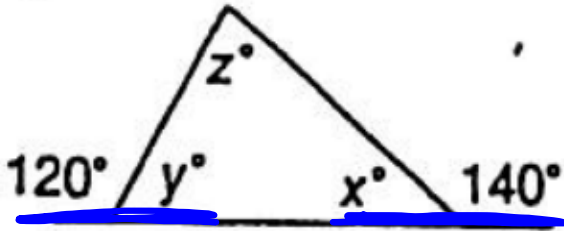
g. 

h. 

i.

nov. 25-09:34

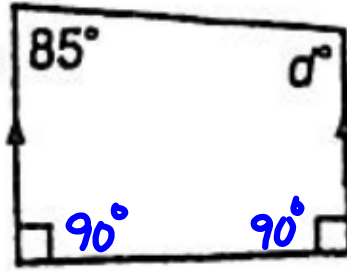
g.



hm

$$\begin{aligned}x^\circ &= 40^\circ \\y^\circ &= 60^\circ \\z^\circ &= 80^\circ\end{aligned}$$

h.

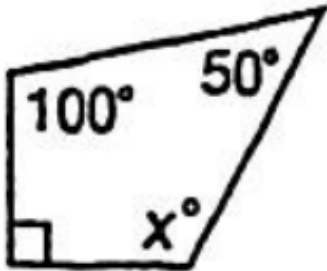


$$d^\circ = 95^\circ$$

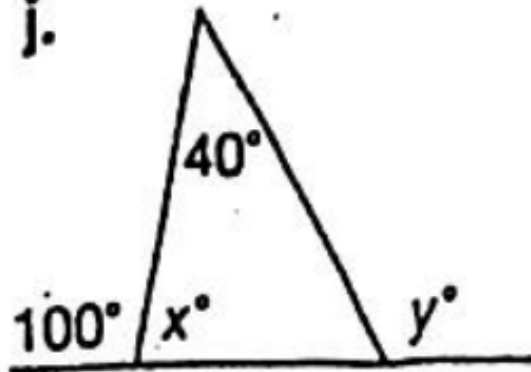
$$\text{Total: } 360^\circ$$

nov. 25-09:34

i.

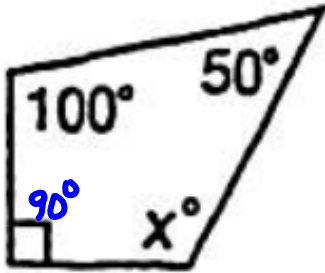


j.



nov. 25-09:34

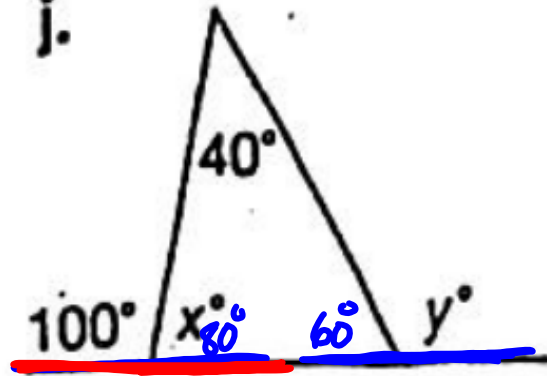
i.



$$x^\circ = 120^\circ$$

$$\text{Total: } 360^\circ$$

j.



$$x^\circ = 80^\circ$$

$$y^\circ = 120^\circ$$

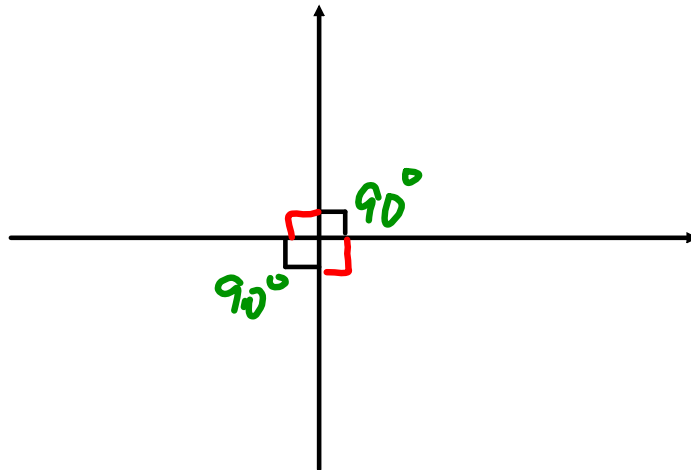
nov. 25-09:34

Question 5.

- a) $x = 60^\circ$
- b) $x = 50^\circ$
- c) $x = 112^\circ$ et $y = 48^\circ$
- d) $x = 110^\circ$
- e) $x = 55^\circ$
- f) $x = 120^\circ$
- g) $x = 40^\circ$ et $y = 60^\circ$ et $z = 80^\circ$
- h) $d = 95^\circ$
- i) $x = 120^\circ$
- j) $x = 80^\circ$ et $y = 120^\circ$

nov. 25-09:56

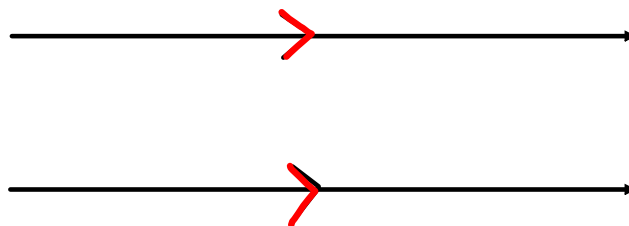
Les droites perpendiculaires



(droites qui se coupent aux angles droits)

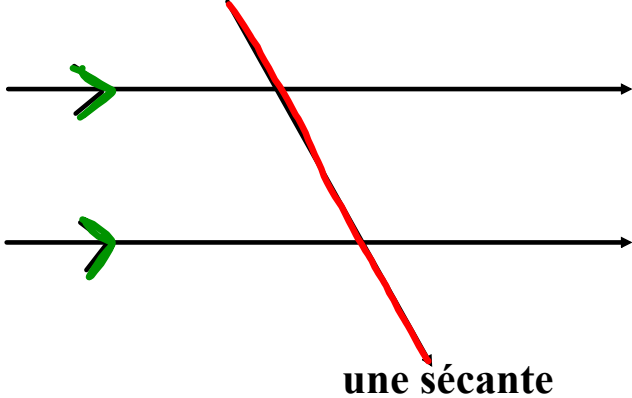
mai 29-20:12

Les droites parallèles



mai 29-20:13

une sécante
une droite qui coupe deux droites parallèles



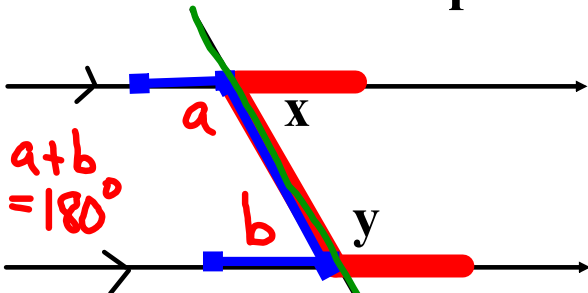
une sécante

mai 29-20:13

Les angles

angles co-internes [

angles qui forment un crochet (C) quand une sécante coupe les droites parallèles]

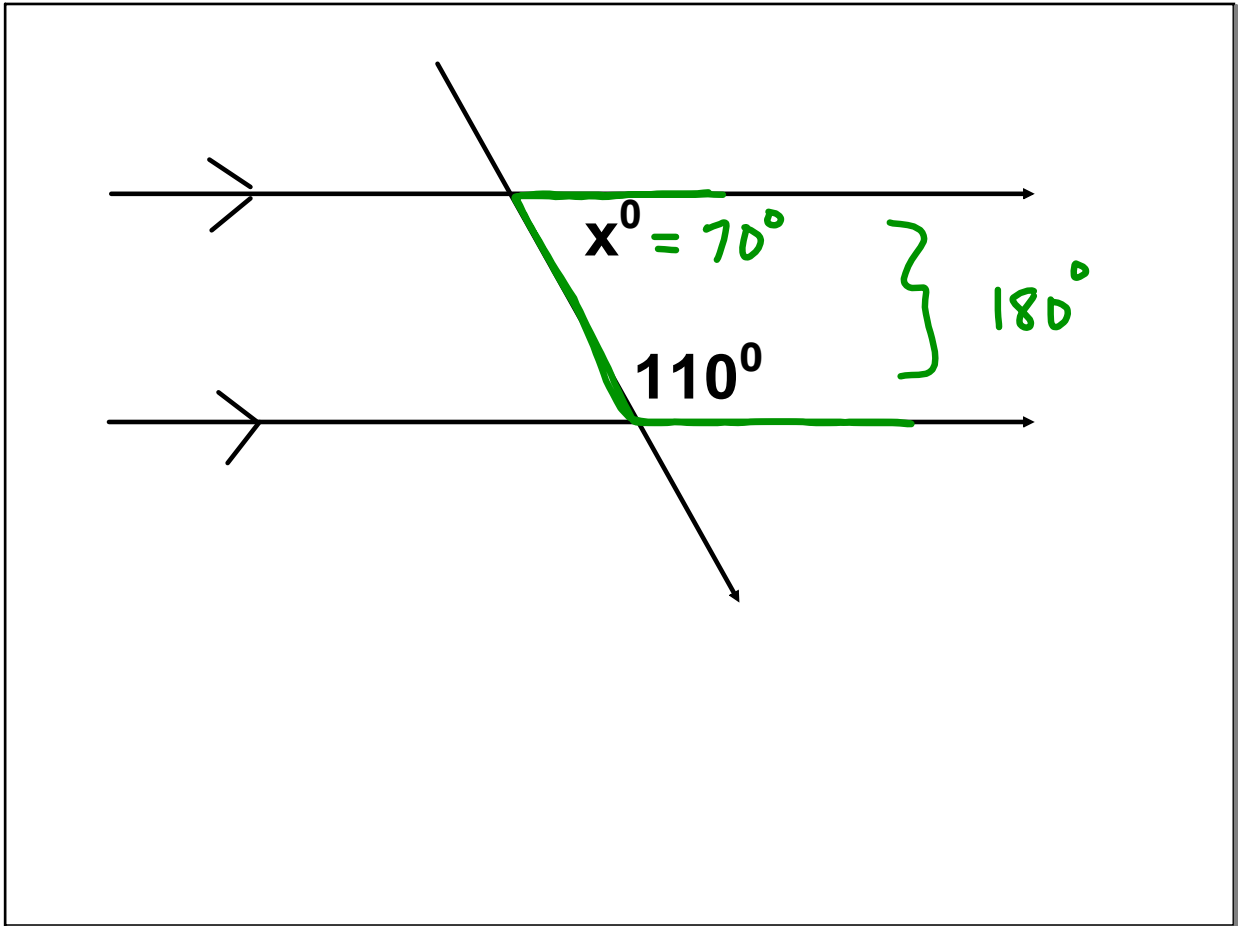


$a + b = 180^\circ$

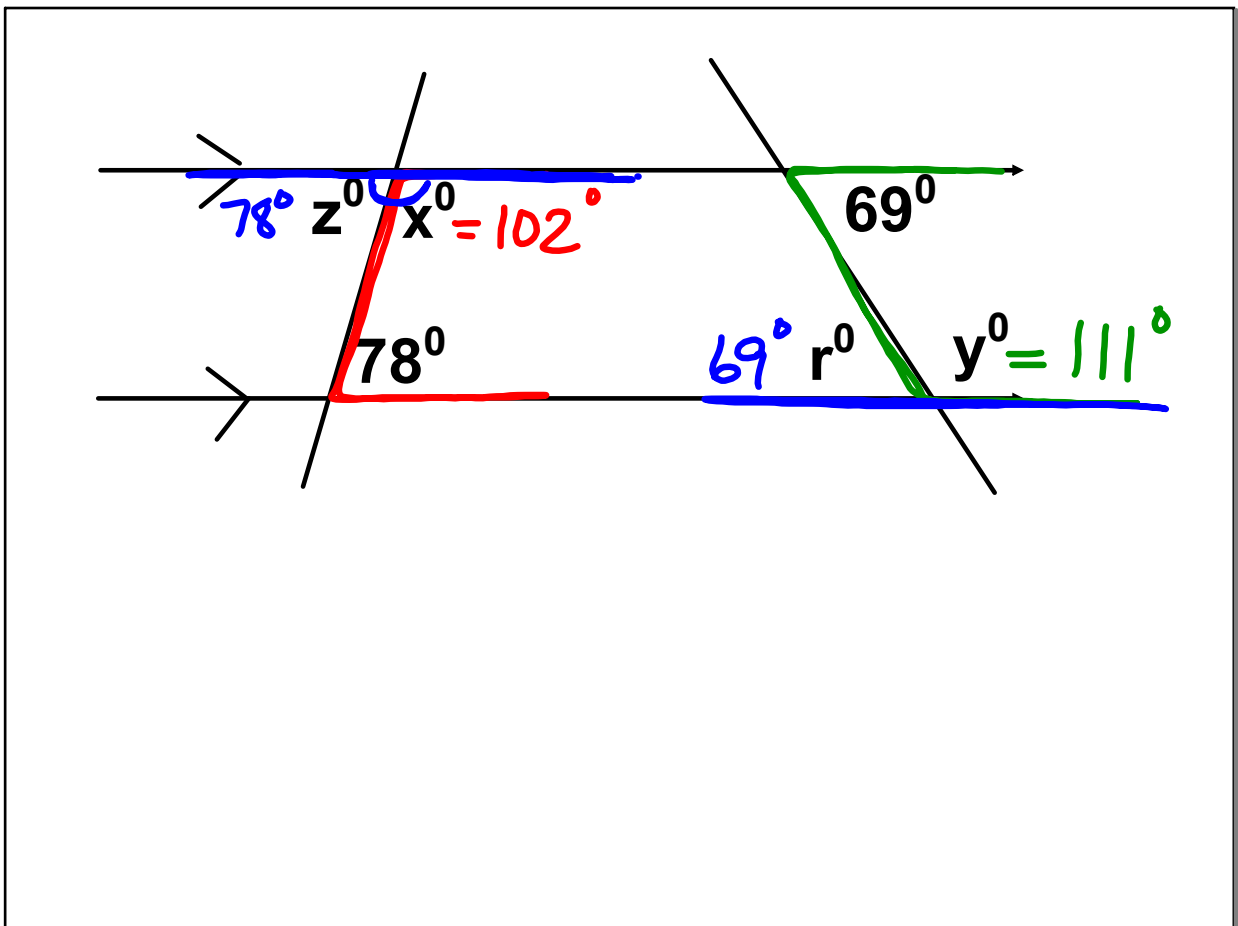
$x + y = 180^\circ$

les angles co-internes ont une somme de 180°

mai 23-20:09



mai 29-20:07

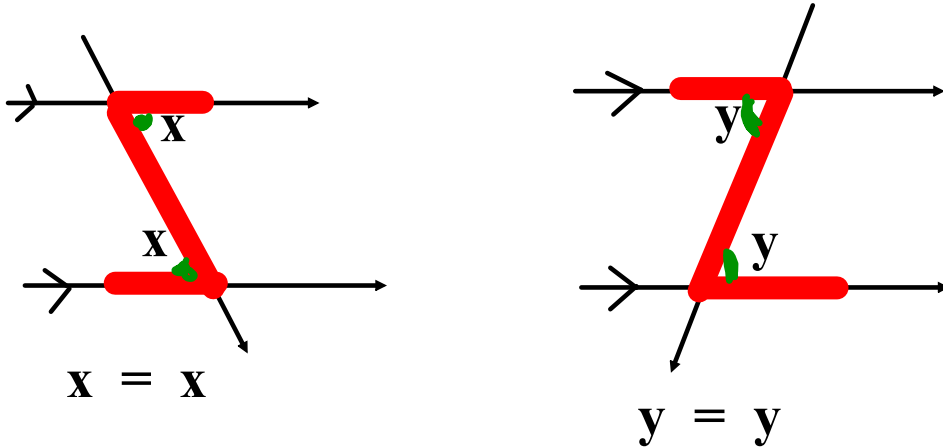


mai 29-20:07

Les angles

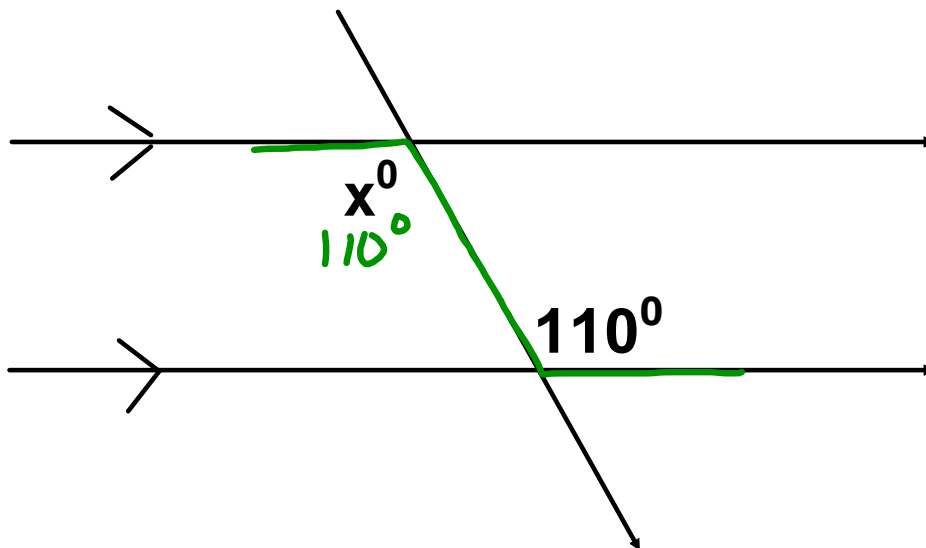
angles alternes internes

angles qui forment un "Z" quand une sécante coupe les droites parallèles

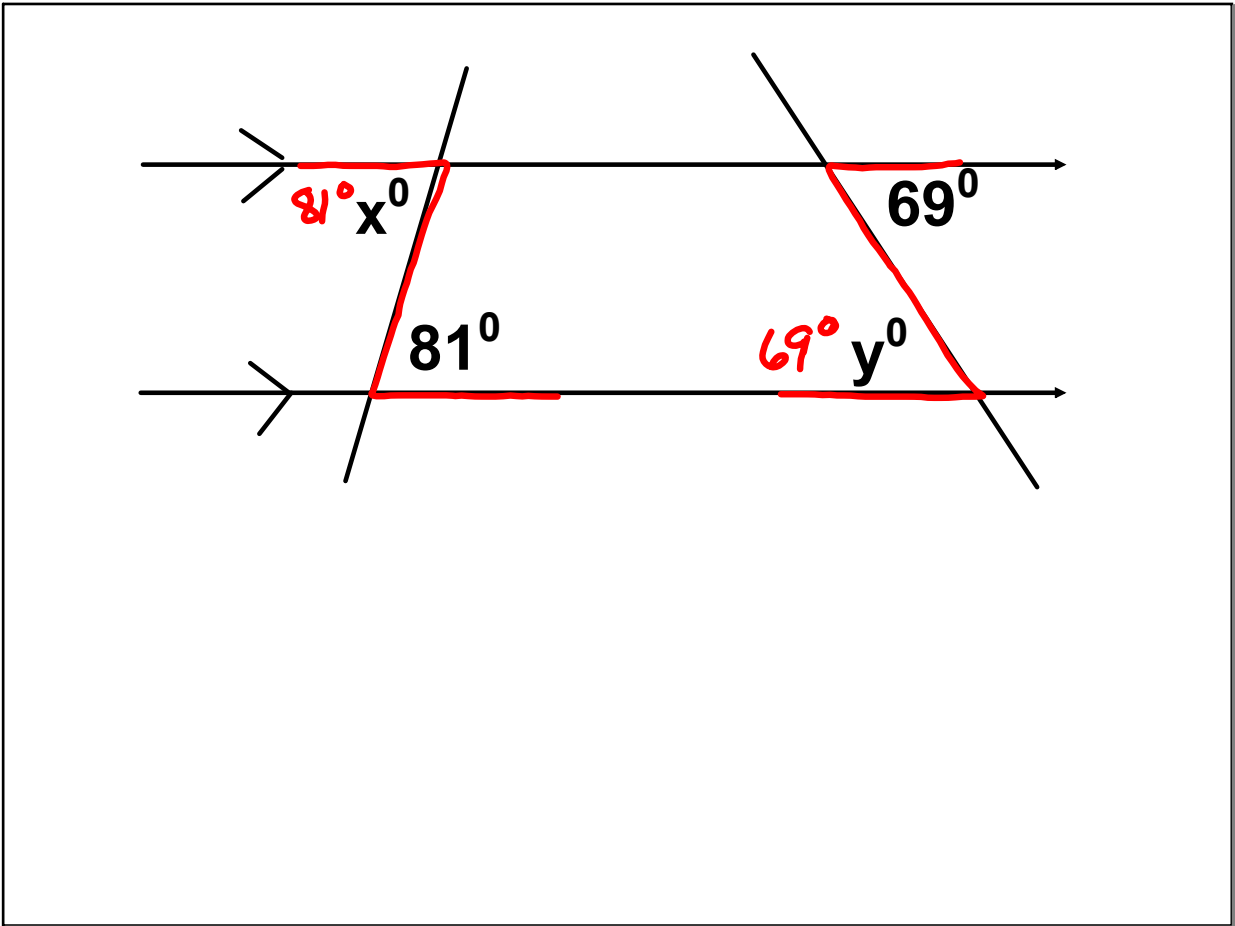


les angles alternes internes sont toujours égaux

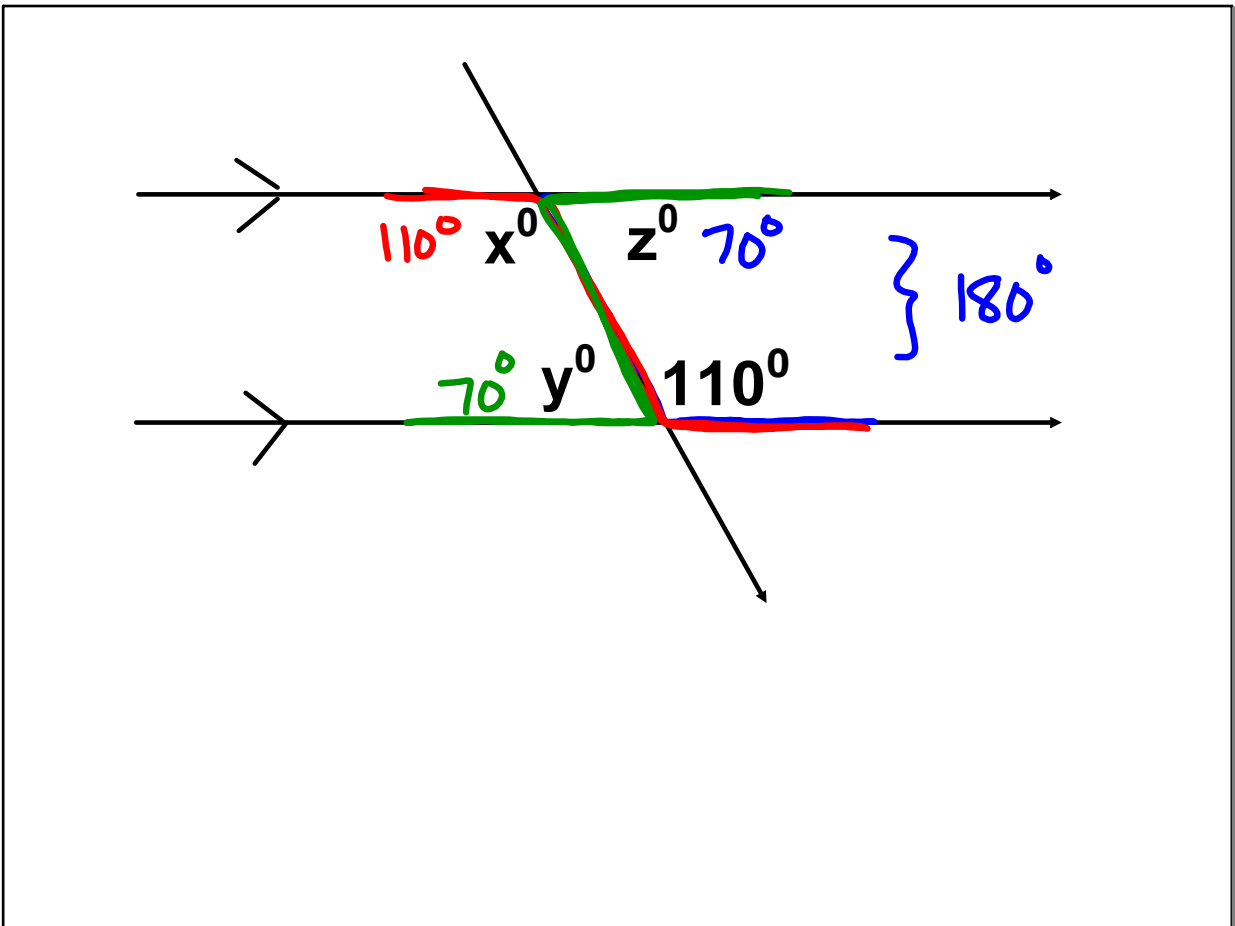
mai 23-20:18



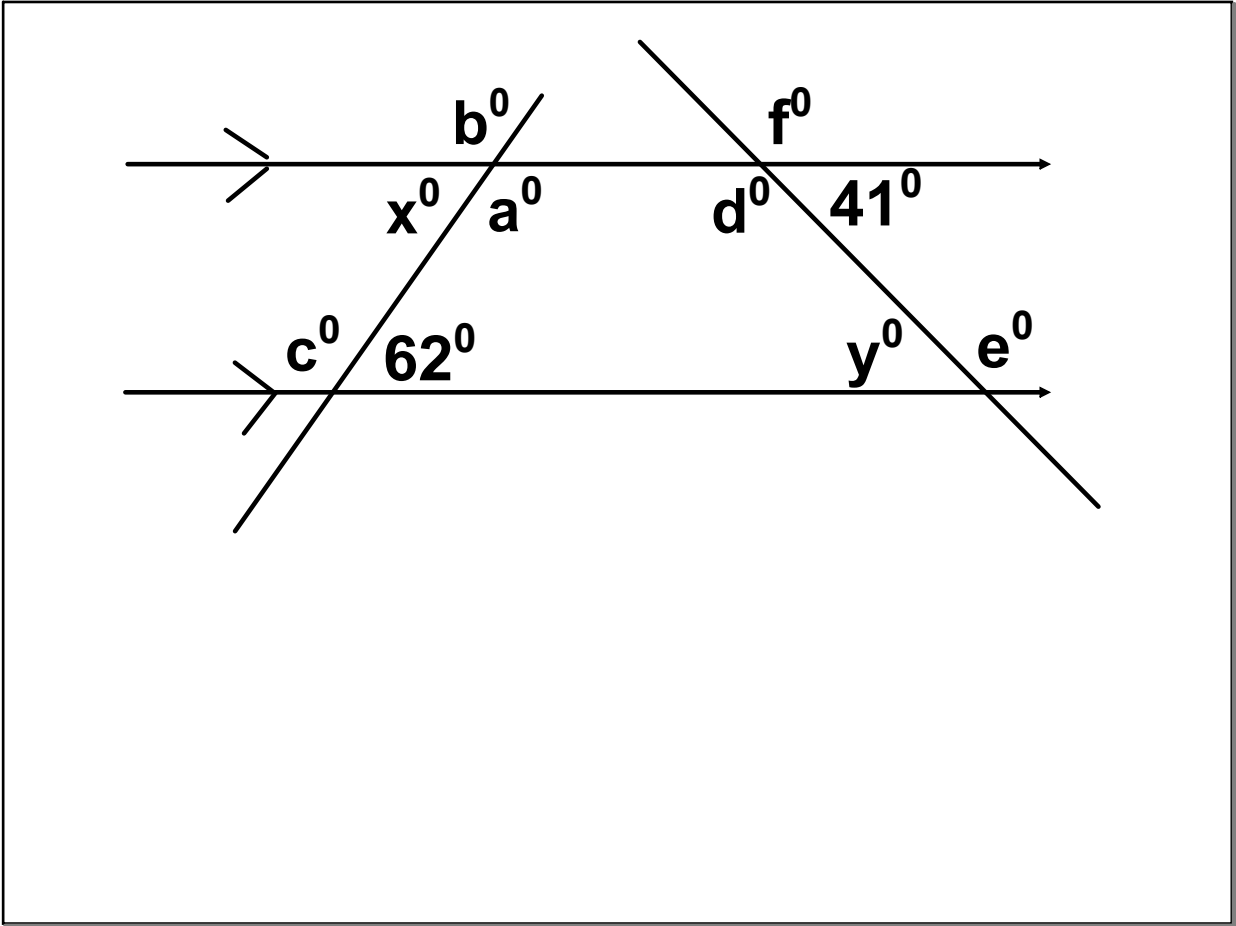
mai 29-20:08



mai 29-20:08



mai 29-20:08

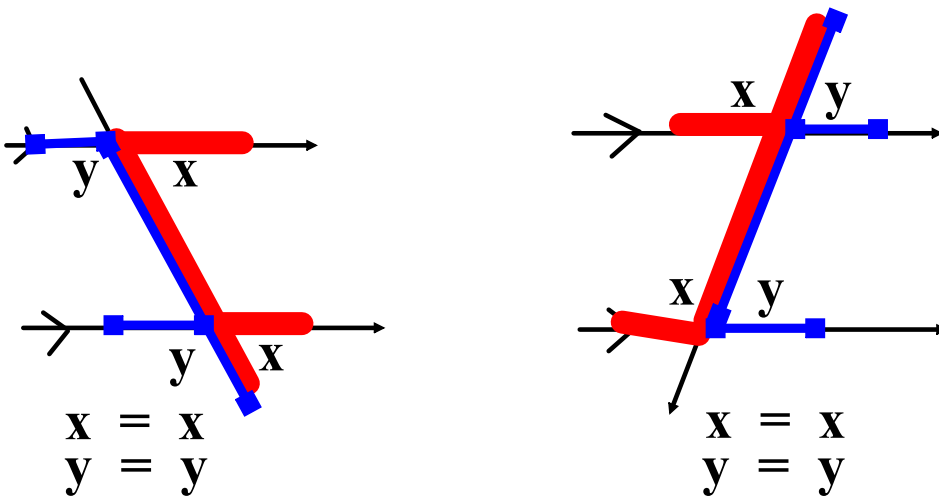


mai 29-20:08

Les angles

angles correspondants

angles qui forment un "F" quand une sécante coupe les droites parallèles



les angles correspondants sont toujours égaux

mai 23-20:25