Dear Parents / Students

Due to the unprecedented situation, Knowledgeplus Training center is mobilized and will keep accompanying and supporting our students through this difficult time. Our Staff will be continuously, sending notes and exercises on a weekly basis through what's app and email. Students are requested to copy the notes and do the exercises on their copybooks. The answers to the questions below will be made available on our website on knowledgeplus.mu/support.php. Please note that these are extra work and notes that we are providing our students and all classes will be replaced during the winter vacation. We thank you for your trust and are convinced that, together, we will overcome these troubled times.

Knowledgeplus Training Center

Mathematics

Garde 7

Week 7

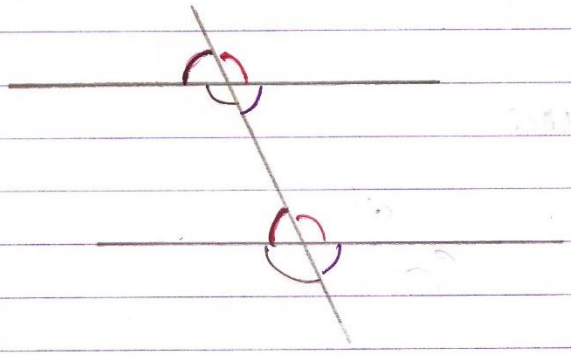
Notes and Exercise

Note:(All the Notes, Examples and Exercise are on the photos and Note:(Please copy all the Notes, Examples and Exercises on your copy book).

Mathematics Grade 7 Week 7

Angles formed by Parallel lines

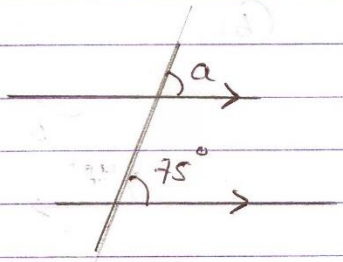
Corresponding Angles.



Example

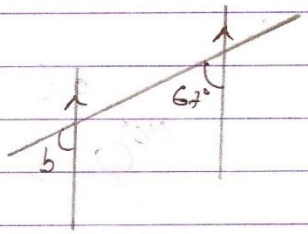
Find the unknown angles in each of the following

(a)



(a) $a = 75$ → Because they are corresponding angles

(b)

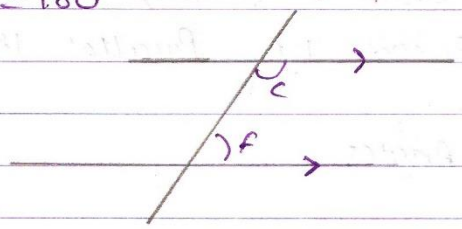


(a) $b = 67°$ → Because they are corresponding angles.

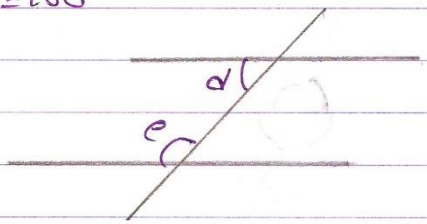
Co-interior Angles

The angles between parallel lines on the same side of the transversal are called co-interior angles. They add up to 180°C and are co-interior angles.

i.e, $c+f=180°$



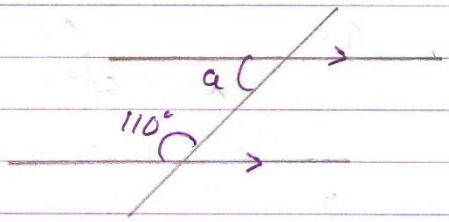
i.e, $d+e=180°$



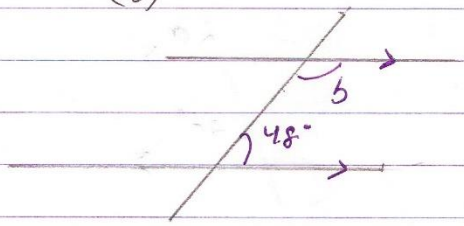
Exeample

Find the unknown angles in each of the following.

(a)



(b)



Solution

(a) $a=180°-110°$

$=70°$

Because they are co-interior angle

(b) $b=180°-48°$

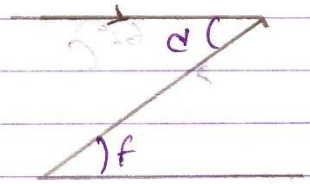
$=132°$

Because they are co-interior angles

Alternate Angles

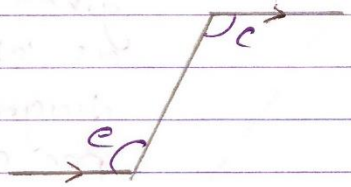
Angle d and f are contained in a 'z'-shape' figure.
They are called alternate angles and they are equal,

ie, d = f



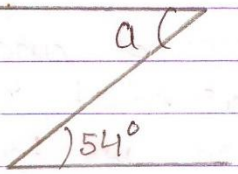
Angles c and e are contained in a 'reverse' z figure.
They are called alternate angles and they are equal.

c = e

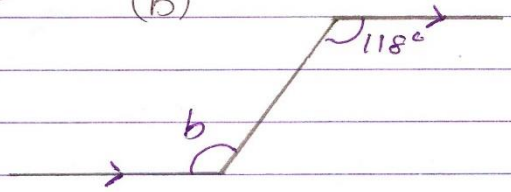


Example
Find the unknown angles in each of the following.

(a)



(b)



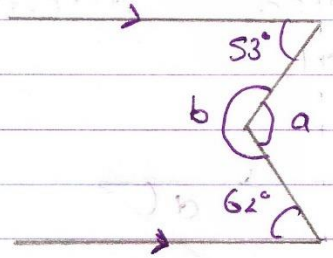
Solution

(a) $a = 54°$
(Because they are alternate angle)

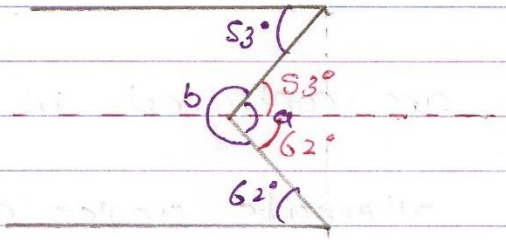
(b) $b = 118°$
(Because they are alternate angle)

Example2

Find the unknown angles a and b in the diagram.



Solution



$a = 62° + 53°$

$= 115°$

$b = 360° - 115°$

$= 245°$

Note: first draw a line parallel to the 2 given parallel lines as shown in the diagram with pencile, pen etc

Then we have 2 alternate angles

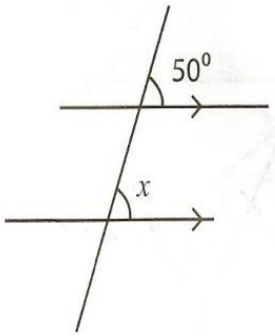
Sum of angles at a point 360°

Then we take 360° - 115°

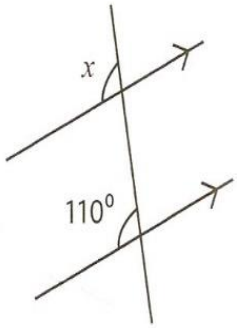
Attempt:Ex1(a-c), Ex2(a-c).

1. Calculate angle x in each of the following cases.

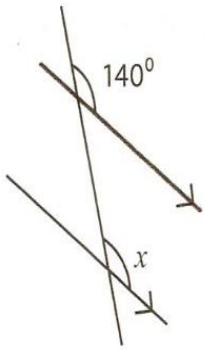
(a)



(b)

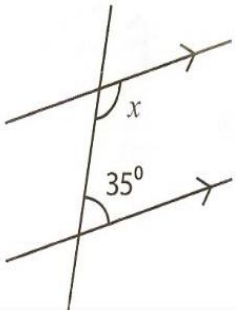


(c)

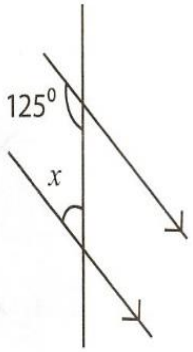


2. Calculate angle x in each of the following cases.

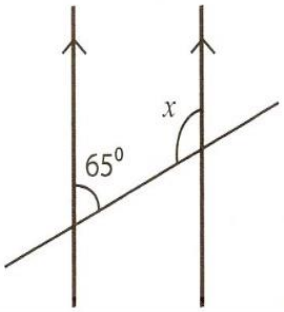
(a)



(b)



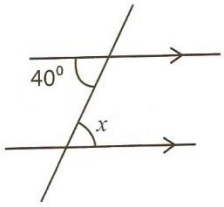
(c)



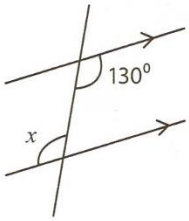
Attempt:Ex3(a-c), Ex4(a-i).

3. Calculate angle x in each of the following cases.

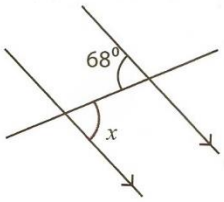
(a)



(b)

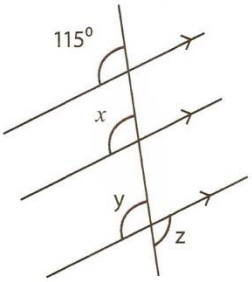


(c)

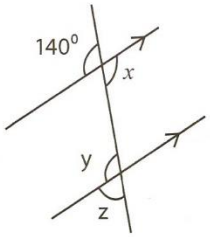


4. Find the unknown angles in each of the following cases.

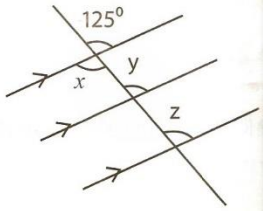
(a)



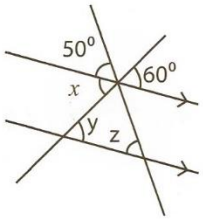
(b)



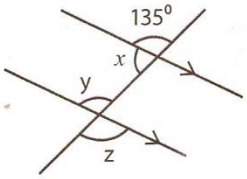
(c)



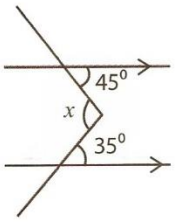
(d)



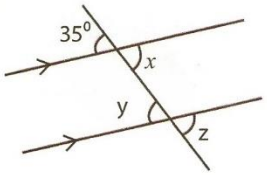
(e)



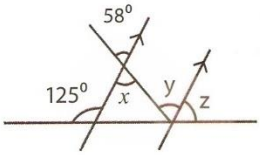
(f)



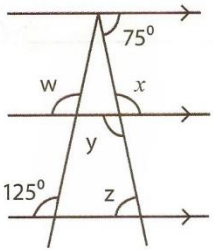
(g)



(h)



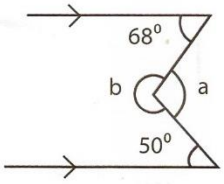
(i)



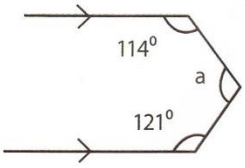
AttemptEx10(a-i).

10. Find the unknown angles:

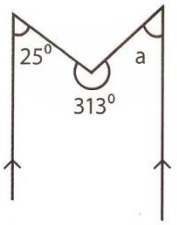
(a)



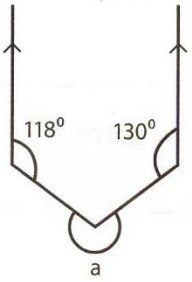
(b)



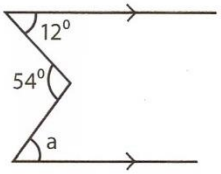
(c)



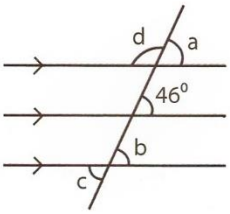
(d)



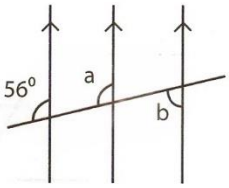
(e)



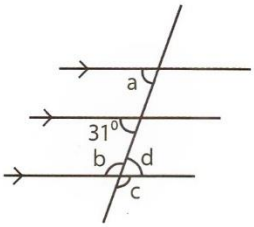
(f)



(g)



(h)



(i)