

CYU 1.5 Measuring & Constructing Angles

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

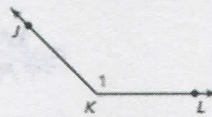
X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Naming Angles	1	2	12
Using a protractor	3, 4	5	13
Classifying angles: right, obtuse, acute	3, 4	5, 7, 8	13
Angle Addition Postulate	6	7, 8	11, 12
Angle Bisector	3, 4	9	10

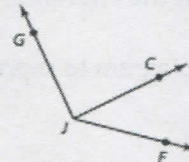
1. Write three names for the angle given.

$\angle I$ $\angle JKL$
 $\angle K$ $\angle LKJ$



2. Name three different angles in the given diagram.

$\angle GJC$ $\angle CJF$
 $\angle CJG$ $\angle FJG$
 $\angle FJC$ $\angle GJF$

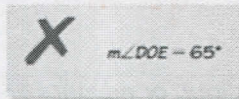


3. Find $m\angle AOC$. Then classify the angle. 30° ; acute

4. Find $m\angle COD$. Then classify the angle.

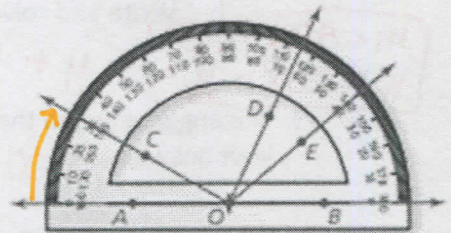
$115 - 30 = 85^\circ$; acute

5. Describe and correct the error in finding the angle measure.



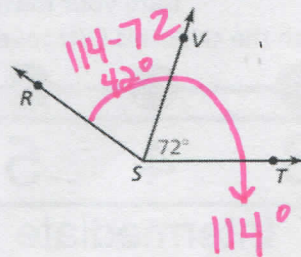
$- 115 + 140$
 25°

they did $\angle DOB$



6. $m\angle RST = 114^\circ$. Find $m\angle RSV$.

$m\angle RSV = 42^\circ$



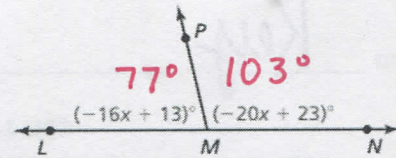
7. $\angle LMN$ is a straight angle. Find $m\angle LMP$ and $m\angle NMP$.

$$-16x + 13 + -20x + 23 = 180$$

$$-36x + 36 = 180$$

$$-36x = 144$$

$$x = -4$$



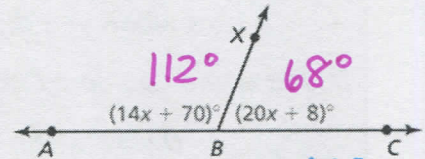
8. $\angle ABC$ is a straight angle. Find $m\angle ABX$ and $m\angle CBX$.

$$14x + 70 + 20x + 8 = 180$$

$$34x + 78 = 180$$

$$34x = 102$$

$$x = 3$$

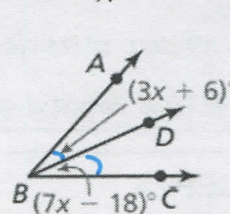


9. \overline{BD} bisects $\angle ABC$. Find $m\angle ABD$, $m\angle CBD$, and $m\angle ABC$.

$$3x + 6 = 7x - 18$$

$$24 = 4x$$

$$6 = x$$



$$m\angle ABD = 3(6) + 6 = 18 + 6 = 24$$

$$m\angle CBD = 7(6) - 18 = 42 - 18 = 24$$

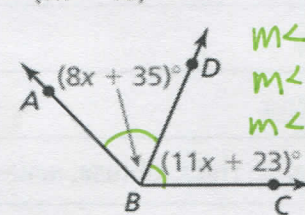
$$m\angle ABC = 48^\circ$$

10. \overline{BD} bisects $\angle ABC$. Find $m\angle ABD$, $m\angle CBD$, and $m\angle ABC$.

$$8x + 35 = 11x + 23$$

$$12 = 3x$$

$$4 = x$$



$$m\angle ABD = 8(4) + 35 = 67^\circ$$

$$m\angle CBD = 11(4) + 23 = 67^\circ$$

$$m\angle ABC = 67 + 67 = 134^\circ$$

11. The map shows the intersections of three roads. Malcom Way intersects Sydney Street at an angle of 162° . Park Road intersects Sydney Street at an angle of 87° . Find the angle at which Malcom Way intersects Park Road.

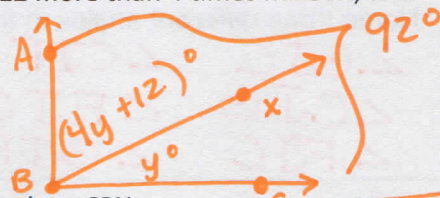


$$162 - 87$$

$$75^\circ$$

12. In $\angle ABC$, \overline{BX} is in the interior of the angle, $m\angle ABX$ is 12 more than 4 times $m\angle CBX$, and $m\angle ABC = 92^\circ$.

- a. Draw a diagram to represent the situation.



- b. Write and solve an equation to find $m\angle ABX$ and $m\angle CBX$.

$$m\angle ABX = 76^\circ$$

$$m\angle CBX = 16^\circ$$

$$y + 4y + 12 = 92 \Rightarrow 5y + 12 = 92$$

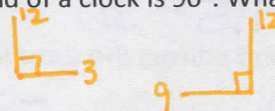
$$5y = 80$$

$$y = 16$$

$$y = 16$$

13. The angle between the minute hand and the hour hand of a clock is 90° . What time is it? Justify your answer.

3:00 or 9:00



answers may vary

CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

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1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!

