

BOARD PROBLEMS Ch. 6

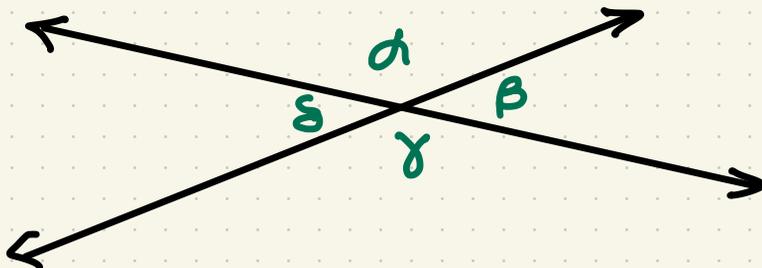
- ① DEFINE PARALLEL

- ② DEFINE PERPENDICULAR.

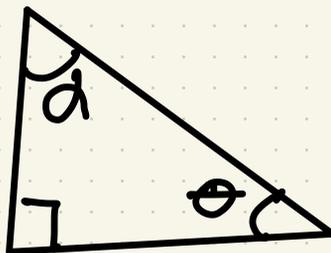
- ③ DRAW A 125° ANGLE AND BISECT IT.

- ④ DRAW A 3.75" LINE AND CONSTRUCT A PERPENDICULAR BISECTOR.

Ch. 6. Complimentary & Supplementary ANGLES



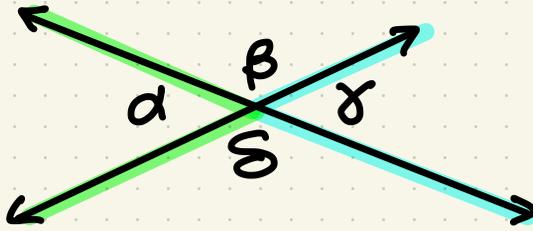
- α - _____
- β - _____
- γ - _____
- δ - _____
- θ - _____



θ theta

ADJACENT ANGLES -

- α is adjacent to β _____
- β is adjacent to δ _____
- δ is adjacent to γ _____



VERTICAL Angles

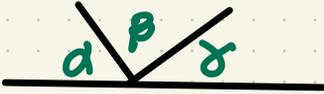
- common origin
- opposite each other
- vertical ANGLES are \cong

$\angle \alpha$ IS VERTICAL TO $\angle \gamma$
 $\angle \delta$ IS VERTICAL TO $\angle \beta$

Supplementary
 angles add to 180°
 α is supplementary
 to δ or β

Linear Pair

Two supplementary
 angles divided by
 a ray or line segment
 adjacent.

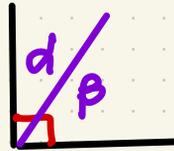


$\alpha + \beta + \gamma = 180^\circ$
 Supplementary

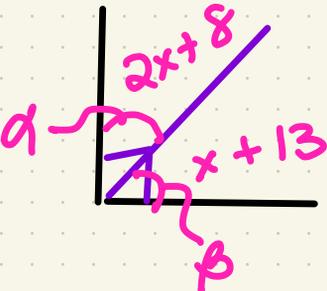
COMPLIMENTARY

adds to 90°

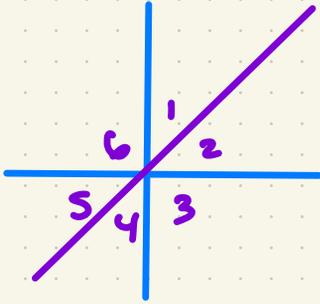
$\alpha + \beta = 90^\circ$
 complementary
 angles



$\alpha = 43^\circ$
 $\beta =$



$x =$ —
 $\alpha =$ —
 $\beta =$ —



NAME ALL \angle 'S ^{that add to} 180°

- 1)
- 2)
- 3)
- 4)
- 5)
- 6)

NAME ALL
Complimentary
 \angle 'S

- 1)
- 2)

NAME ALL Vertica
 \angle 'S

- 1
- 2
- 3

LESSON PRACTICE

Use the drawing to fill in the blanks.

1. $\angle AHC$ is adjacent to \angle _____ and \angle _____.

2. $\angle BHD$ is adjacent to \angle _____ and \angle _____.

3. $\angle FHB$ and \angle _____ are vertical angles.

4. $\angle FHC$ and \angle _____ are vertical angles.

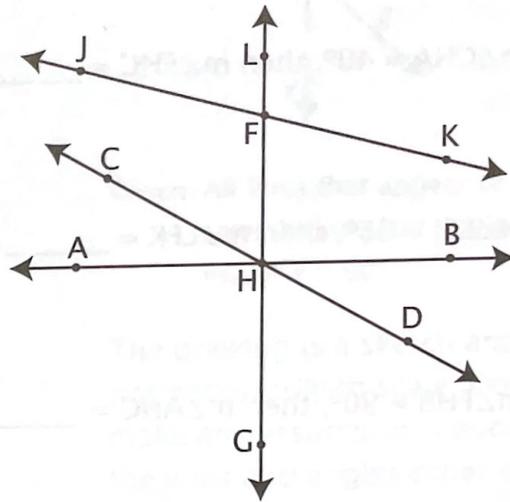
5. $\angle LFJ$ and \angle _____ are supplementary angles.

6. $\angle FHC$ and \angle _____ are complementary angles.

7. $\angle JFH$ and \angle _____ are supplementary angles.

8. $\angle BHD$ and \angle _____ are complementary angles.

9. If $m\angle CHA = 40^\circ$, then $m\angle BHD =$ _____.



Given: \vec{AB} , \vec{CD} , \vec{LG} , and \vec{JK} are straight lines. $m\angle FHB = 90^\circ$.

The drawing is a sketch and not necessarily to scale. Don't make any assumptions about the lines and angles other than what is actually given.

LESSON PRACTICE 6A

Use the drawing from the previous page to fill in the blanks.

10. If $m\angle JFL = 65^\circ$, then $m\angle KFH = \underline{\hspace{2cm}}$.

11. If $m\angle FHB = 90^\circ$, then $m\angle FHA = \underline{\hspace{2cm}}$.

12. If $m\angle CHA = 40^\circ$, then $m\angle FHC = \underline{\hspace{2cm}}$.

13. If $m\angle LFJ = 65^\circ$, then $m\angle LFK = \underline{\hspace{2cm}}$.

14. If $m\angle FHB = 90^\circ$, then $m\angle AHG = \underline{\hspace{2cm}}$.

Use the letters to match each term to the best answer.

15. β

16. adjacent angles

17. supplementary angles

18. α

19. complementary angles

20. vertical angles

a. share a common ray

b. alpha

c. always have the same measure

d. add up to 90°

e. add up to 180°

f. beta

5. $\angle QNF$
are su

6. $\angle QNT$ and
are comple

7. $\angle NRZ$ and \angle
are supplement

8. $\angle MNS$ and \angle
are complementary