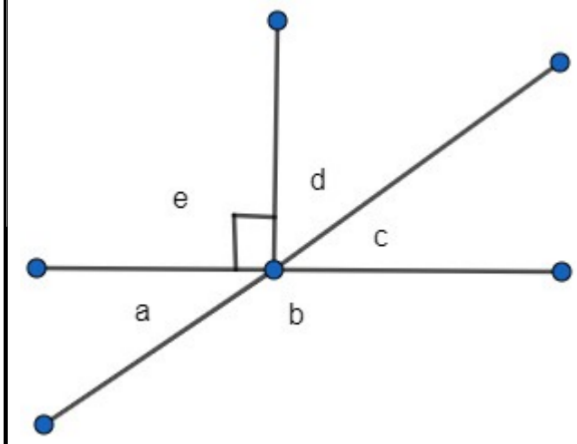
14.3 Special Angles

PRACTICE

Directions: Label each pair of angles as vertical, supplementary, complementary or none.



1) ∠e and ∠b

NONE

2) ∠b and ∠c

SUPPLEMENTARY

3) ∠a and ∠c

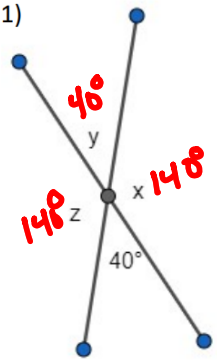
VERTICAL

4) ∠c and ∠d

COMPLEMENTARY

Directions: Solve for all variables.

1)

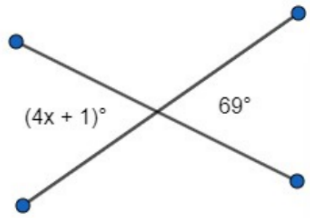


$x + 40 = 180$

$x = 140°$

$x = z$ $\quad y = 40°$

2)



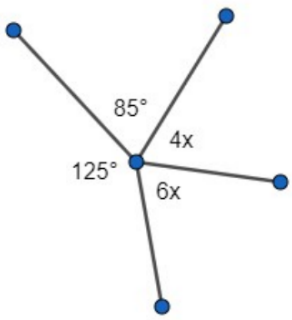
$4x + 1 = 69$

$-1 \quad -1$

$\frac{4x}{4} = \frac{68}{4}$

$x = 17°$

3)



$125 + 85 + 4x + 6x = 360$

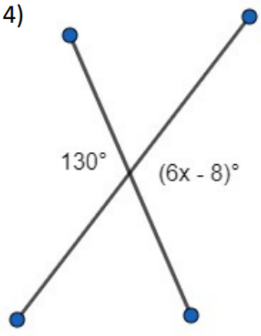
$210 + 10x = 360$

$-210 \quad -210$

$\frac{10x}{10} = \frac{150}{10}$

$x = 15°$

4)



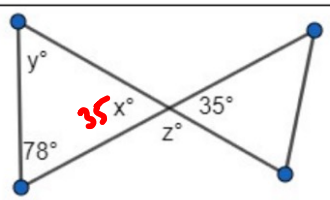
$130 = 6x - 8$

$+8 \quad +8$

$\frac{138}{6} = \frac{6x}{6}$

$23° = x$

5)



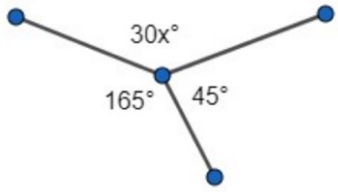
$35 = x$

$z + 35 = 180$

$-35 \quad -35$

$z = 145°$

6)



$30x + 45 + 165 = 360$

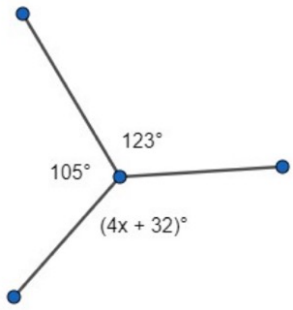
$30x + 210 = 360$

$-210 \quad -210$

$\frac{30x}{30} = \frac{150}{30}$

$x = 5°$

7)



$105 + 123 + 4x + 32 = 360$

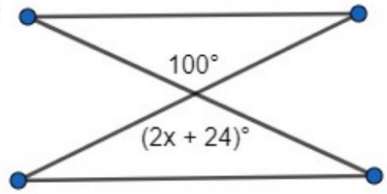
$260 + 4x = 360$

$-260 \quad -4x$

$\frac{4x}{4} = \frac{100}{4}$

$x = 25°$

8)



$100 = 2x + 24$

$-24 \quad -24$

$\frac{76}{2} = \frac{2x}{2}$

$38° = x$