

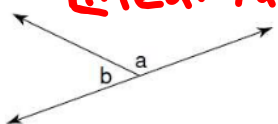
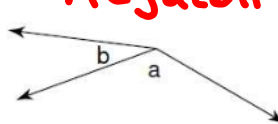
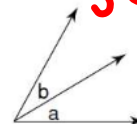
Geometry

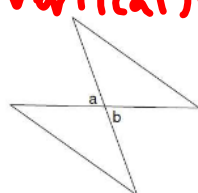
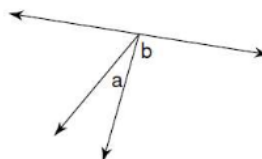
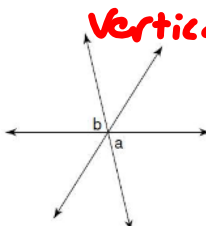
Congruence & Proofs

Practice

Name: _____ Date: _____

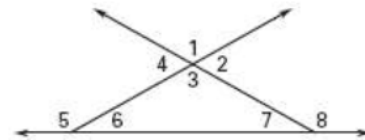
Name the angle relationship: linear pair, vertical angles, or adjacent.

1. **Linear Pair**  2. **Adjacent**  3. **Adjacent** 

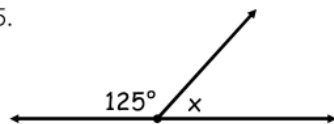
4. **Vertical Angles**  5. **Adjacent**  6. **Vertical Angles** 

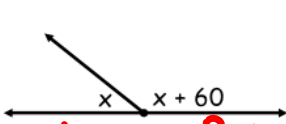
Use the diagram to tell whether the angles are vertical angles, a linear pair, or neither.

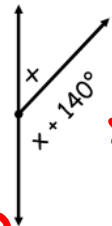
7. $\angle 1$ and $\angle 2$ LP 8. $\angle 1$ and $\angle 3$ VA
 9. $\angle 1$ and $\angle 4$ LP 10. $\angle 1$ and $\angle 5$ N
 11. $\angle 1$ and $\angle 6$ N 12. $\angle 1$ and $\angle 7$ N
 13. $\angle 1$ and $\angle 8$ N 14. $\angle 2$ and $\angle 4$ VA



Solve for x.

15.  **Linear Pair**
 $125 + x = 180$
 $-125 \quad -125$
 $x = 55^\circ$

16.  **Linear Pair**
 $x + x + 60 = 180$
 $2x + 60 = 180$
 $-60 \quad -60$
 $\frac{2x}{2} = \frac{120}{2}$
 $x = 60$

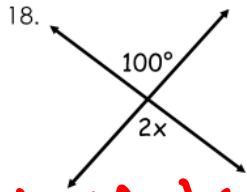
17.  **Linear Pair**
 $x + x + 140 = 180$
 $2x + 140 = 180$
 $-140 \quad -140$
 $\frac{2x}{2} = \frac{40}{2}$
 $x = 20^\circ$

Geometry

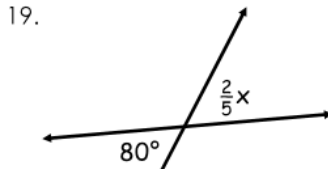
Congruence & Proofs

Practice

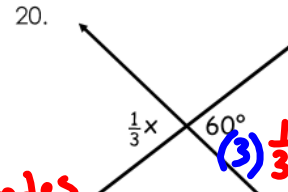
Solve for x.



Vertical Angles
 $\frac{100}{2} = \frac{2x}{2}$
 $50 = x$



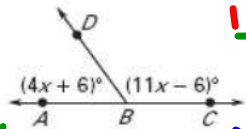
Vertical Angles
 $(\frac{5}{2}) 80 = \frac{2}{5} x (\frac{5}{2})$
 $\frac{400}{2} = x$
 $x = 200$



Vertical Angles
 $(3) \frac{1}{3} x = 60$
 $x = 180$

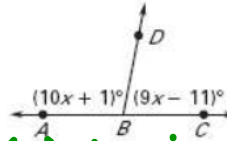
Use the diagram to find the indicated measure.

21. $x = \frac{12}{1}$
 $m\angle ABD = 54^\circ$
 $m\angle DBC = 126^\circ$



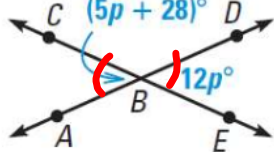
LP
 $4x + 6 + 11x - 6 = 180$
 $15x = 180$
 $\frac{15x}{15} = \frac{180}{15}$
 $x = 12$
 $4(12) + 6 = 54^\circ$
 $11(12) - 6 = 126^\circ$

22. $x = \frac{10}{1}$
 $m\angle ABD = 101^\circ$
 $m\angle DBC = 79^\circ$



LP
 $10x + 1 + 9x - 11 = 180$
 $19x - 10 = 180$
 $+ 10 + 10$
 $19x = 190$
 $\frac{19x}{19} = \frac{190}{19}$
 $x = 10$
 $10(10) + 1 = 101$
 $9(10) - 11 = 79$

23. $x = \frac{4}{1}$
 $m\angle ABC = 48^\circ$
 $m\angle DBE = 48^\circ$



VA
 $5p + 28 = 12p$
 $- 5p - 5p$
 $28 = 7p$
 $\frac{28}{7} = \frac{7p}{7}$
 $p = 4$
 $5(4) + 28 = 48$
 $12(4) = 48$