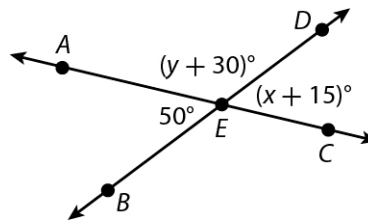


Angles Formed by Intersecting Lines

Practice and Problem Solving: A/B

Use the figures for Problems 1–5.



1. supplement of $\angle AEB$

2. $x =$ _____

3. $y =$ _____

4. $m\angle DEC =$ _____

5. $m\angle AED =$ _____

6. $\angle DEF$ and $\angle FEG$ are complementary. $m\angle DEF = (3x - 4)^\circ$, and $m\angle FEG = (5x + 6)^\circ$.

Find the measures of both angles.

7. $\angle DEF$ and $\angle FEG$ are supplementary. $m\angle DEF = (9x + 1)^\circ$, and $m\angle FEG = (8x + 9)^\circ$.

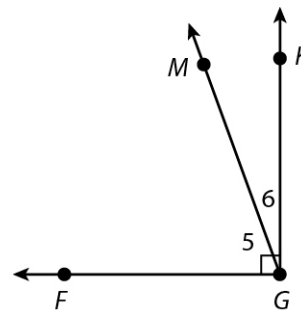
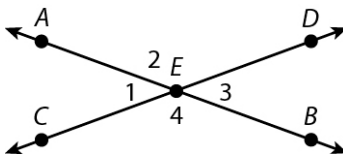
Find the measures of both angles.

8. $\angle ABC$ and $\angle CBD$ form a linear pair and have equal measures. Tell if $\angle ABC$ is acute, right, or obtuse.

9. $\angle KLM$ and $\angle MLN$ are complementary. \overline{LM} bisects $\angle KLN$. Find the measures of $\angle KLM$ and $\angle MLN$.

Use the terms and the diagrams below to answer Problems 10–13.
Notice that more than one term can be used for some questions.

Terms:
linear pair
supplementary angles
complementary angles
right angle
vertical angles

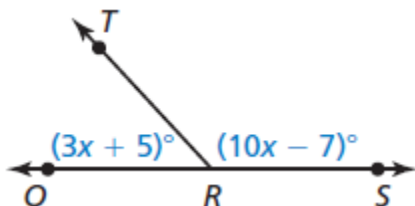


10. $\angle 5$ and $\angle 6$ are _____ and adjacent angles.
11. $\angle 1$ and $\angle 3$ are _____.
12. $\angle 1$ and $\angle 2$ are _____ and _____.
13. $\angle FGK$ is a _____.

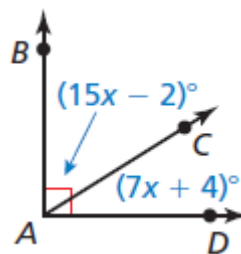
In Exercises 14 –19, find the angle measure.

14. $\angle 1$ is a complement of $\angle 2$, and $m\angle 1 = 23^\circ$. Find $m\angle 2$.
15. $\angle 3$ is a complement of $\angle 4$, and $m\angle 3 = 46^\circ$. Find $m\angle 4$.
16. $\angle 5$ is a supplement of $\angle 6$, and $m\angle 5 = 78^\circ$. Find $m\angle 6$.
17. $\angle 7$ is a supplement of $\angle 8$, and $m\angle 7 = 109^\circ$. Find $m\angle 8$.

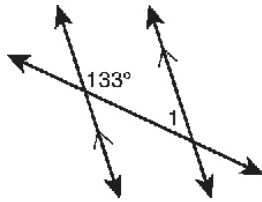
18.



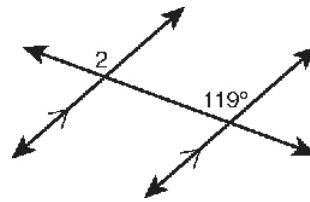
19.



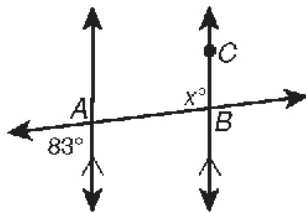
Name the relationship between the angles, and then find the angle measure.



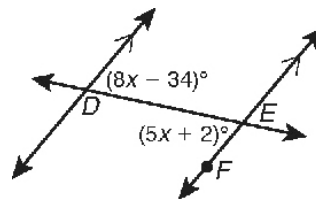
20. $m\angle 1$



21. $m\angle 2$

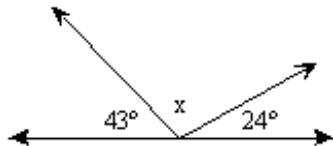


22. $m\angle ABC$



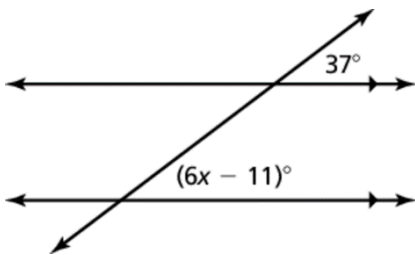
23. $m\angle DEF$

24. Solve for x .

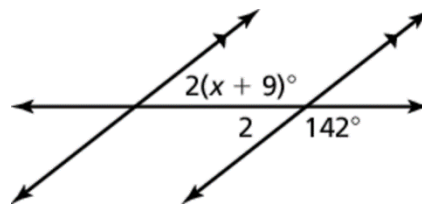


In Exercises 25 - 28, find the value of x or y . Show your steps.

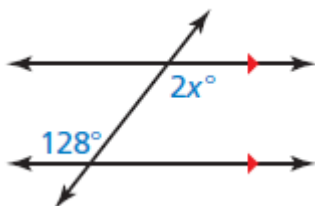
25.



26.



27.



28.

