

Vocabulary and Concept Check

- VOCABULARY** Explain the difference between complementary angles and supplementary angles.
- WRITING** When two lines intersect, how many pairs of vertical angles are formed? Explain.

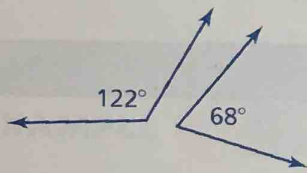
Practice and Problem Solving

Tell whether the statement is *always*, *sometimes*, or *never* true. Explain.

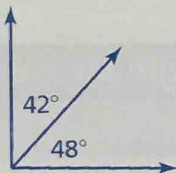
- If x and y are supplementary angles, then x is obtuse.
- If x and y are right angles, then x and y are supplementary angles.
- If x and y are complementary angles, then y is a right angle.

Tell whether the angles are *complementary*, *supplementary*, or *neither*.

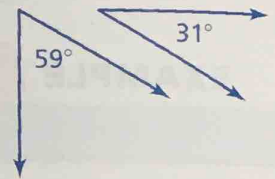
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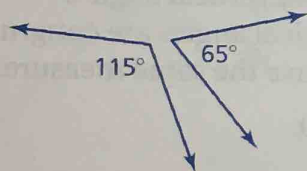
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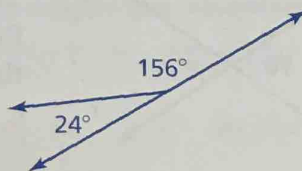
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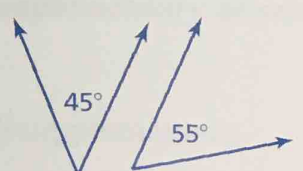
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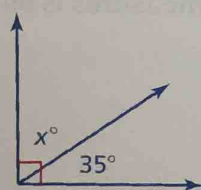


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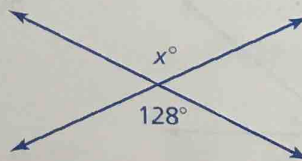


Find the value of x .

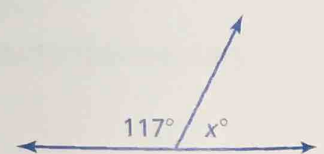
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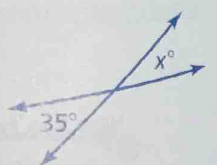


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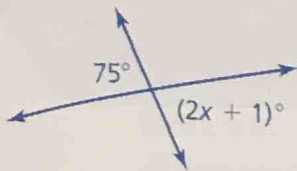
- ERROR ANALYSIS** Describe and correct the error in finding the value of x .
- TRIBUTARY** A tributary joins a river at an angle. Find the value of x .

X The value of x is 55 because vertical angles are complementary.

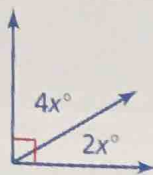


Find the value of x .

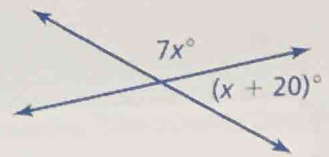
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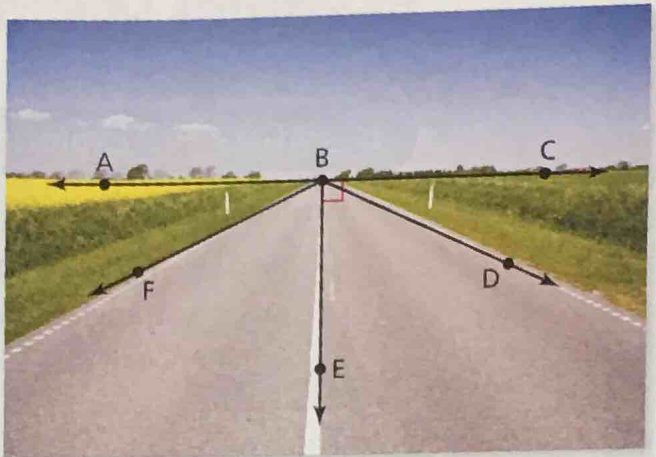
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20. **OPEN-ENDED** Give an example of an angle that can be a supplementary angle but cannot be a complementary angle. Explain.

21. **VANISHING POINT** The vanishing point of the picture is represented by point B .

- Name two pairs of complementary angles.
- Name three pairs of supplementary angles.

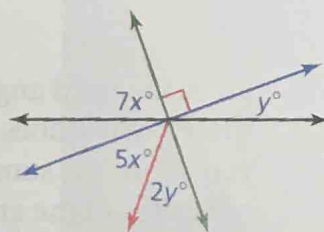


22. **INTERSECTION** What are the measures of the other three angles formed by the intersection?

23. **RATIO** The measures of two complementary angles have a ratio of 3:2. What is the measure of the larger angle?

24. **REASONING** Two angles are vertical angles. What are their measures if they are also complementary angles? supplementary angles?

25. **Critical Thinking** Write and solve a system of equations to find the values of x and y .



Fair Game Review

What you learned in previous grades & lessons

Solve the equation. Check your solution. (Section 1.1 and Section 1.2)

26. $x + 60 + 45 = 180$

27. $x + 58.5 + 92.2 = 180$

28. $x + x + 110 = 180$

29. **MULTIPLE CHOICE** The graph of which equation has a slope of $-\frac{1}{2}$ and passes through the point $(6, 4)$. (Section 3.2)

(A) $y = x + 3$

(B) $y = -\frac{1}{2}x + 7$

(C) $y = -\frac{1}{2} + 1$

(D) $y = \frac{1}{2}x - 3$