ALBERT

Name _____ Date _____

Adding Angles Worksheet

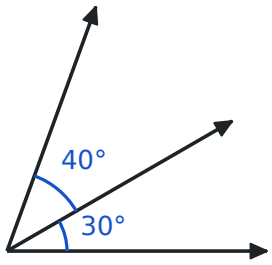
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> Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

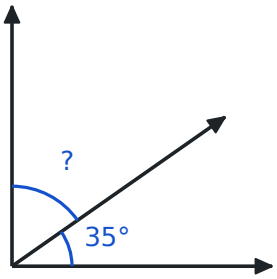
Practice

Builds the skill step by step.

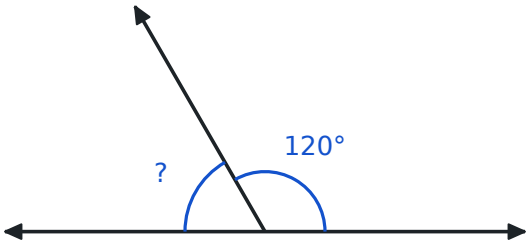
1. Two angles are next to each other. What is the measure of the whole angle?



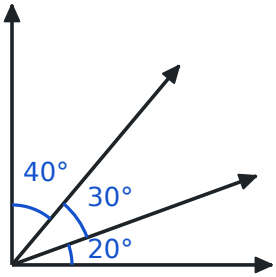
2. The two angles together make a right angle. What is the unknown angle?



3. The two angles together make a straight angle. What is the unknown angle?



4. Three angles are next to each other. What is the measure of the whole angle?



5. A right angle is split into a 25° angle and an angle x. Which equation finds x?

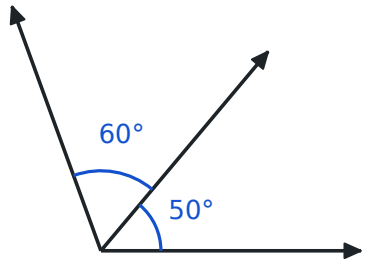
   A. 25 + x = 90

   B. x − 25 = 90

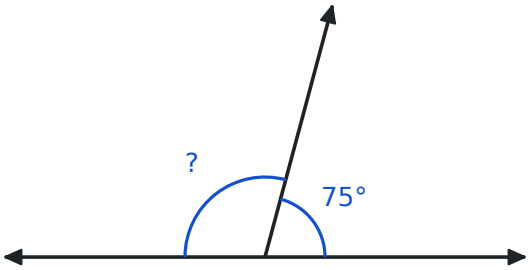
   C. 25 + 90 = x

   D. x + 90 = 25

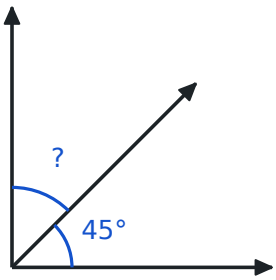
6. Two angles are next to each other. What is the measure of the whole angle?



7. The two angles together make a straight angle. What is the unknown angle?



8. The two angles together make a right angle. What is the unknown angle?



9. Three angles fill a full turn (360°) around a point. Two of them are 100° and 120°. What is the third angle?

10. An angle measures 150°. It is split into two parts. One part is 90°. What is the other part?

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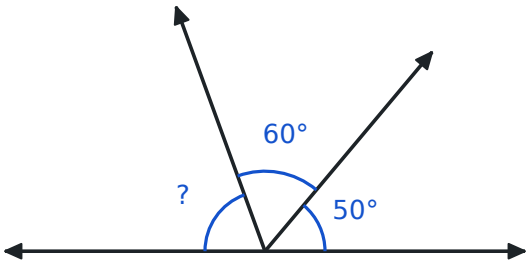
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On Level

Grade-level practice.

1. A door opens 40°, then opens 35° more. How many degrees is it open now?

2. The three angles together make a straight angle. What is the unknown angle?



3. A right angle is split into 3 equal angles. What does each angle measure?

4. An angle measures 135°. A ray splits it into two parts. One part is 80°. What is the other part?

5. A straight angle is split into an angle of 48° and an angle n. Which equation finds n?

   A. 48 + n = 180

   B. n − 48 = 180

   C. 48 + n = 90

   D. n = 48 + 180

6. A round pizza is cut into 6 equal slices from the center. What is the angle of each slice at the center?

7. Four angles fill a full turn around a point. Three of them are 80°, 100° and 90°. What is the fourth angle?

8. A skater turns 90°, then 45°, then 90°, all in the same direction. How many degrees does she turn in all?

9. A straight angle is split into two equal angles. What does each angle measure?

10. A 160° angle is split into two equal angles. What does each angle measure?

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Challenge

Multi-step and word problems that stretch it.

1. A straight angle is split into three angles: 40°, 65° and x. What is x?

2. Four angles fill a full turn. Two are right angles, and the other two are equal. What does each of the other two measure?

3. A right angle is split into angle A and angle B. Angle A is 20° larger than angle B. What is angle A?

4. Which pair of angles makes a straight angle?

   A. 100° and 100°

   B. 90° and 80°

   C. 115° and 65°

   D. 115° and 75°

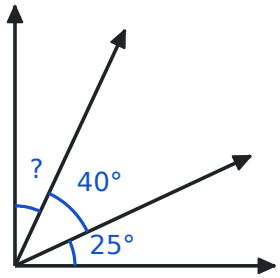
5. Three equal angles fill a straight angle. What does each measure?

6. Angle ABC measures 145°. Ray BD splits it so that angle ABD is 90°. What is angle DBC?

7. A full turn is split into 5 equal angles. What does each measure?

8. Ana turns 270° to the right, then turns back 45° to the left. How many degrees to the right of her starting direction is she facing now?

9. The three angles together make a right angle. What is the unknown angle?



10. Two angles make a straight angle. One measures 38°. Solve x + 38 = 180 to find the other angle, x.