## Lesson 15: Reasoning About Angles (Part 2)

* Let’s figure out missing angle measurements.

### Warm-up: How Many Do You See: Obtuse Angles

How many angles do you see in the folded paper heart?



### 15.1: Shaded and Unshaded Angles

Find the measurement of each shaded angle. Show how you know.



### 15.2: Info Gap: A Whole Bunch of Angles

Your teacher will give you either a problem card or a data card. Do not show or read your card to your partner.



Pause here so your teacher can review your work. Ask your teacher for a new set of cards and repeat the activity, trading roles with your partner.

### Section Summary

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Earlier in the unit, we learned that a right angle measures exactly $90^{∘}$. In this section, we learned other ways to name angles based on their measurements.

* **Acute angles** are less than 90º.



* **Obtuse angles** are greater than 90º but less than 180º.



* **Straight angles** are exactly 180º.



We also solved problems about angles. For example, if two angles make a right angle or a straight angle, we can use the size of one angle to find the other.

The shaded angle here must be $28^{∘}$ because it makes a right angle when combined with the $62^{∘}$ angle.



Another example: Knowing that a full turn measures $360^{∘}$, we reasoned that the long hand of a clock makes:

* a $360^{∘}$ angle every hour
* a $180^{∘}$ angle every one-half hour
* a $90^{∘}$ angle every 15 minutes
* a $60^{∘}$ angle every 10 minutes





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