

Measuring Angles

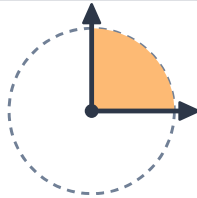
An angle is a turn. A full turn is 360 degrees.

A full turn is 360°. How many degrees is each part of a turn?

Example

$\frac{1}{4}$ of a turn

$$360 \div 4 = 90^\circ$$



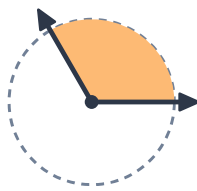
1. $\frac{1}{8}$ of a turn

$$360 \div 8 = \boxed{}^\circ$$



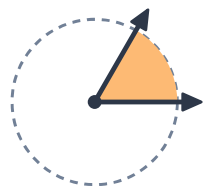
2. $\frac{1}{3}$ of a turn

$$360 \div 3 = \boxed{}^\circ$$



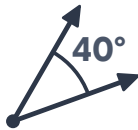
3. $\frac{1}{6}$ of a turn

$$360 \div 6 = \boxed{}^\circ$$



Write acute, right, obtuse, straight, or reflex.

Example

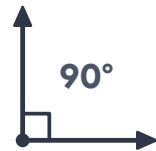


acute

4.



5.



6.



7.



8.



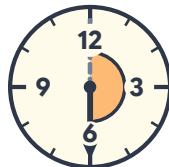
The numbers on a clock are 30° apart. How far does the minute hand turn?

Example



12 to 3: 90°

9.



12 to 6: °

10.



12 to 2: °

11.



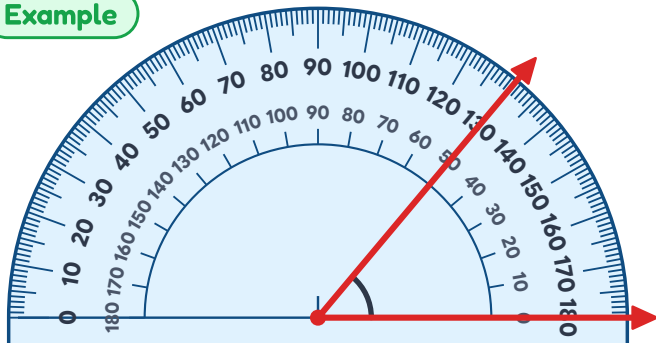
12 to 9: °

Measuring Angles

Read each angle on the protractor.

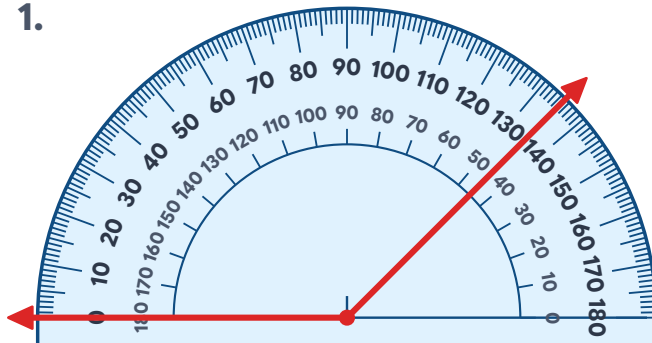
Start at the 0 on the first ray. Read that scale.

Example

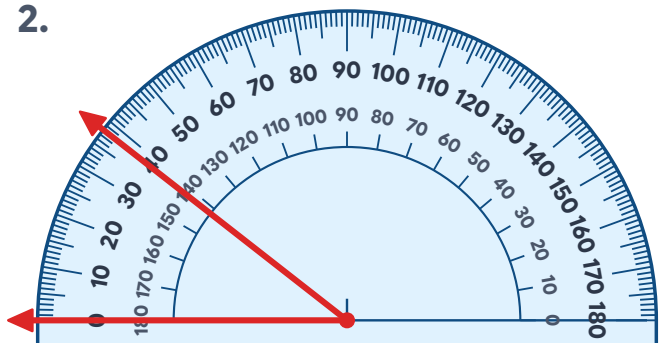


50°

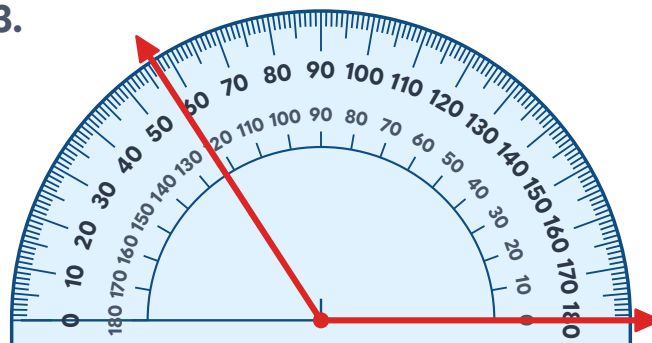
1.



2.



3.



Is the angle acute or obtuse? Circle the measure that makes sense.

Example



40°
140°

4.



65°
115°

5.



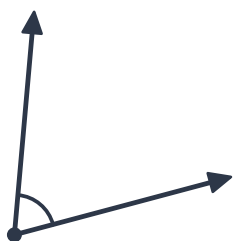
20°
160°

Measuring Angles

Measure each angle with your protractor.

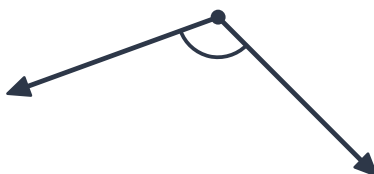
Measure each angle. Make a ray longer if it does not reach the scale.

Example



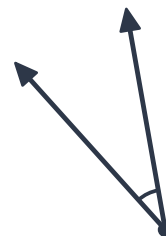
70°

1.



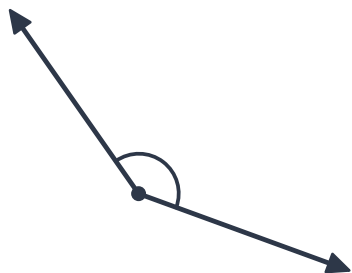
°

2.



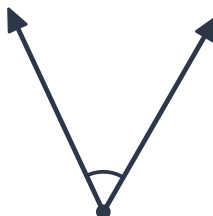
°

3.



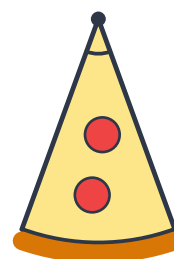
°

4.



°

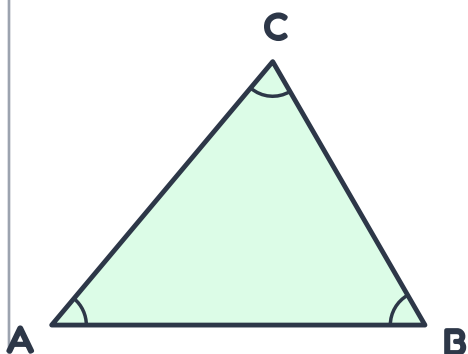
5.



°

Measure the angles inside each shape.

6.

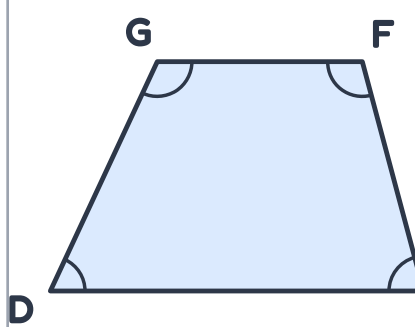


A = °

B = °

C = °

7.



D = °

E = °

F = °

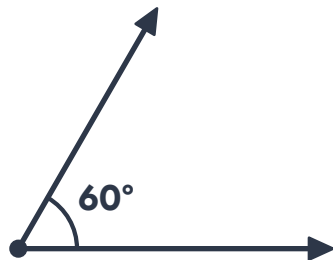
G = °

Measuring Angles

Draw each angle with your protractor.

Put the center of the protractor on the dot. Draw the second ray.

Example Draw a 60° angle.



1. Draw a 35° angle.



2. Draw a 125° angle.



3. Draw a 90° angle.



4. Draw a 150° angle.



5. Draw a 105° angle.

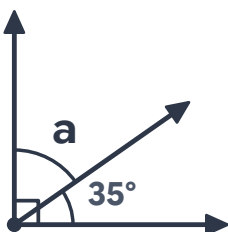


Measuring Angles

The parts of an angle add up to the whole angle.

A right angle is 90° . A straight angle is 180° . Write an equation, then solve.

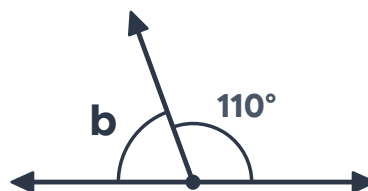
Example



$$a = 55^\circ$$

$$\text{Equation: } 35 + a = 90$$

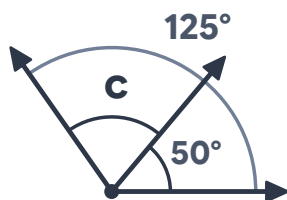
1.



$$b = \boxed{}^\circ$$

$$\text{Equation: } \underline{\hspace{2cm}}$$

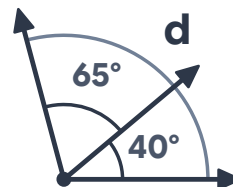
2.



$$c = \boxed{}^\circ$$

$$\text{Equation: } \underline{\hspace{2cm}}$$

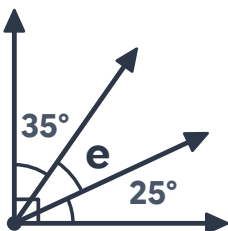
3.



$$d = \boxed{}^\circ$$

$$\text{Equation: } \underline{\hspace{2cm}}$$

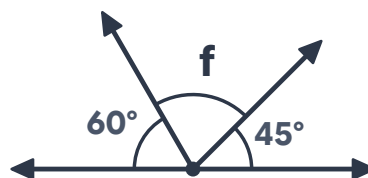
4.



$$e = \boxed{}^\circ$$

$$\text{Equation: } \underline{\hspace{2cm}}$$

5.



$$f = \boxed{}^\circ$$

$$\text{Equation: } \underline{\hspace{2cm}}$$

Solve. Write the answer in degrees.

Example

A door is open 35° . Ana pushes it 40° more. How far open is the door now?

$$75^\circ$$

6. A fan turns through 180° . So far it has turned 65° . How many more degrees will it turn?

$$\boxed{}^\circ$$

Measuring Angles

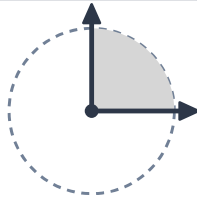
An angle is a turn. A full turn is 360 degrees.

A full turn is 360°. How many degrees is each part of a turn?

Example

$\frac{1}{4}$ of a turn

$$360 \div 4 = 90^\circ$$



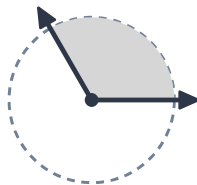
1. $\frac{1}{8}$ of a turn

$$360 \div 8 = \boxed{}^\circ$$



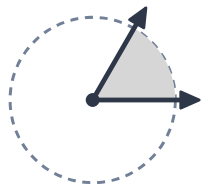
2. $\frac{1}{3}$ of a turn

$$360 \div 3 = \boxed{}^\circ$$



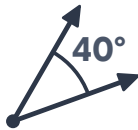
3. $\frac{1}{6}$ of a turn

$$360 \div 6 = \boxed{}^\circ$$



Write acute, right, obtuse, straight, or reflex.

Example

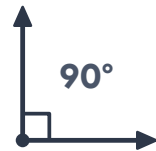


acute

4.



5.



6.



7.

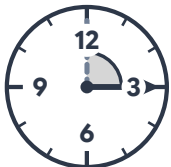


8.



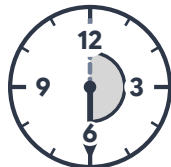
The numbers on a clock are 30° apart. How far does the minute hand turn?

Example



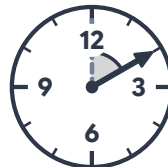
12 to 3: 90°

9.



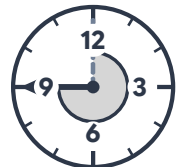
12 to 6: °

10.



12 to 2: °

11.



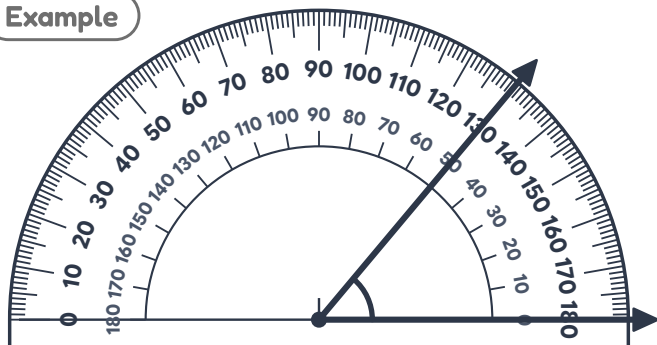
12 to 9: °

Measuring Angles

Read each angle on the protractor.

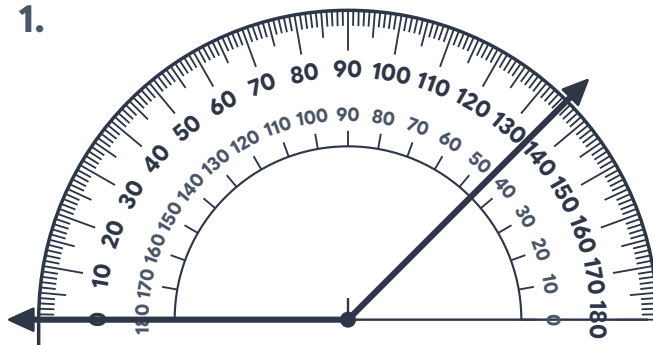
Start at the 0 on the first ray. Read that scale.

Example

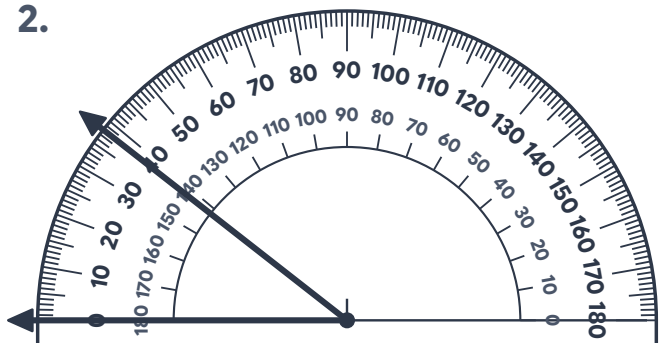


50°

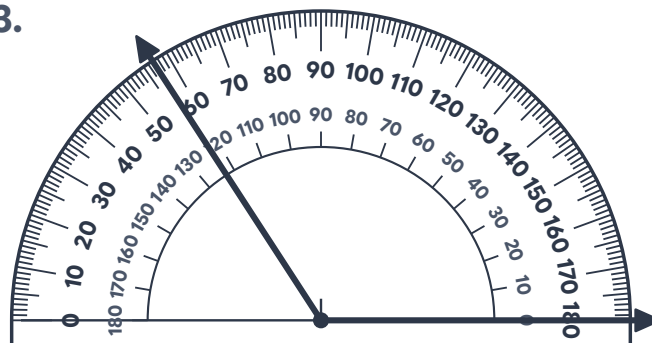
1.



2.



3.



Is the angle acute or obtuse? Circle the measure that makes sense.

Example



40°
140°

4.



65°
115°

5.

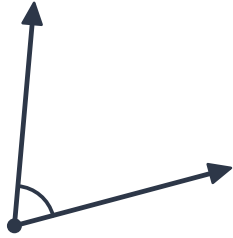
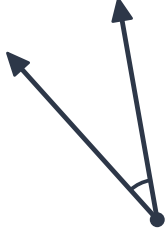
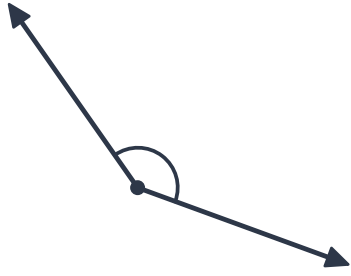
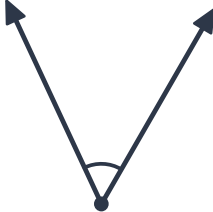
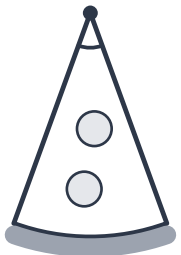


20°
160°

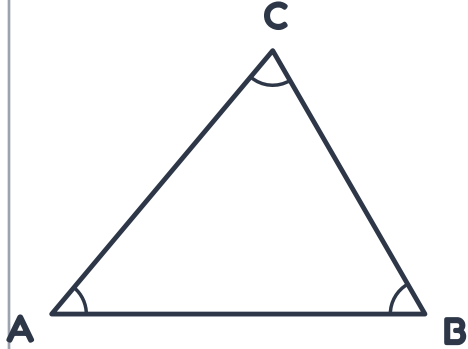
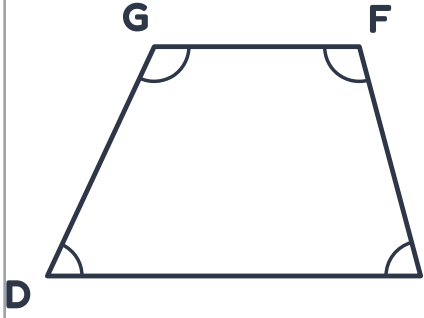
Measuring Angles

Measure each angle with your protractor.

Measure each angle. Make a ray longer if it does not reach the scale.

Example  70°	1.  °	2.  °
3.  °	4.  °	5.  °

Measure the angles inside each shape.

6.  A = ° B = ° C = °	7.  D = ° E = ° F = ° G = °
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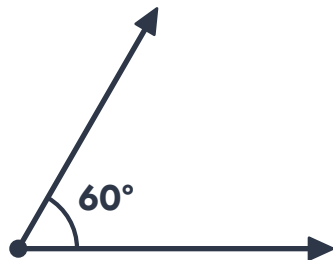
Measuring Angles

Draw each angle with your protractor.

Put the center of the protractor on the dot. Draw the second ray.

Example

Draw a 60° angle.



1. Draw a 35° angle.



2. Draw a 125° angle.



3. Draw a 90° angle.



4. Draw a 150° angle.



5. Draw a 105° angle.

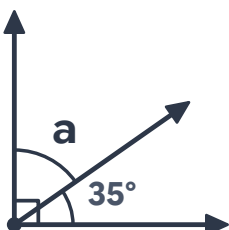


Measuring Angles

The parts of an angle add up to the whole angle.

A right angle is 90° . A straight angle is 180° . Write an equation, then solve.

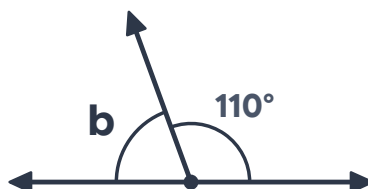
Example



$$a = 55^\circ$$

Equation: $35 + a = 90$

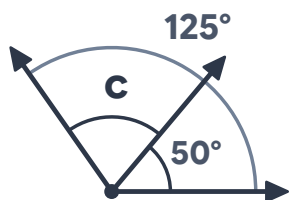
1.



$$b = \boxed{}^\circ$$

Equation: _____

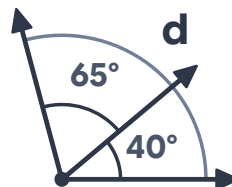
2.



$$c = \boxed{}^\circ$$

Equation: _____

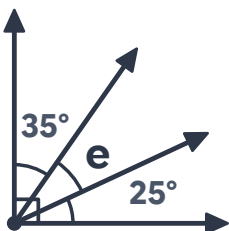
3.



$$d = \boxed{}^\circ$$

Equation: _____

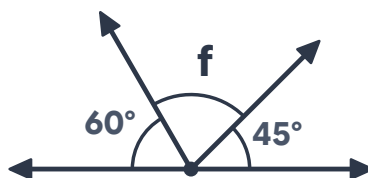
4.



$$e = \boxed{}^\circ$$

Equation: _____

5.



$$f = \boxed{}^\circ$$

Equation: _____

Solve. Write the answer in degrees.

Example

A door is open 35° . Ana pushes it 40° more. How far open is the door now?

$$75^\circ$$

6. A fan turns through 180° . So far it has turned 65° . How many more degrees will it turn?

$$\boxed{}^\circ$$

Measuring Angles

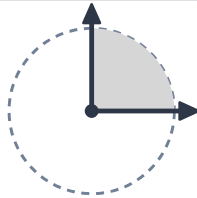
An angle is a turn. A full turn is 360 degrees.

A full turn is 360° . How many degrees is each part of a turn?

Example

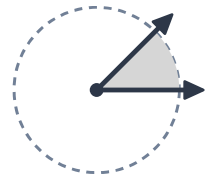
$\frac{1}{4}$ of a turn

$$360 \div 4 = 90^\circ$$



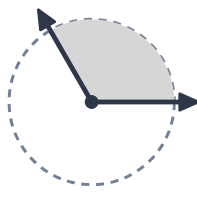
1. $\frac{1}{8}$ of a turn

$$360 \div 8 = 45^\circ$$



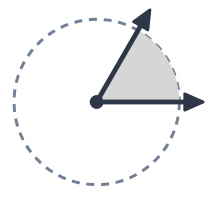
2. $\frac{1}{3}$ of a turn

$$360 \div 3 = 120^\circ$$



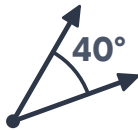
3. $\frac{1}{6}$ of a turn

$$360 \div 6 = 60^\circ$$



Write acute, right, obtuse, straight, or reflex.

Example



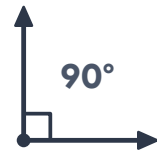
acute

4.



obtuse

5.



right

6.



straight

7.



reflex

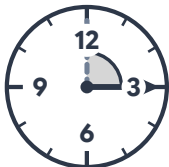
8.



obtuse

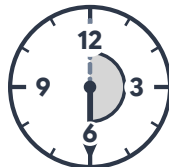
The numbers on a clock are 30° apart. How far does the minute hand turn?

Example



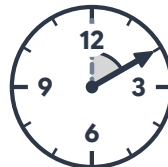
12 to 3: 90°

9.



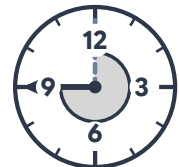
12 to 6: 180°

10.



12 to 2: 60°

11.



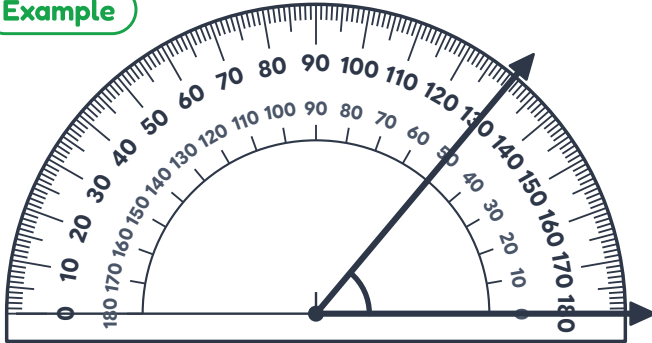
12 to 9: 270°

Measuring Angles

Read each angle on the protractor.

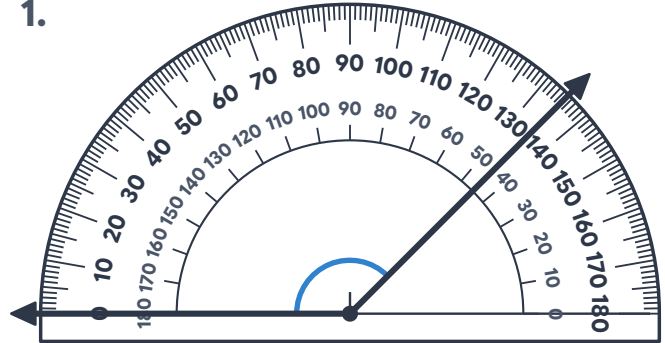
Start at the 0 on the first ray. Read that scale.

Example



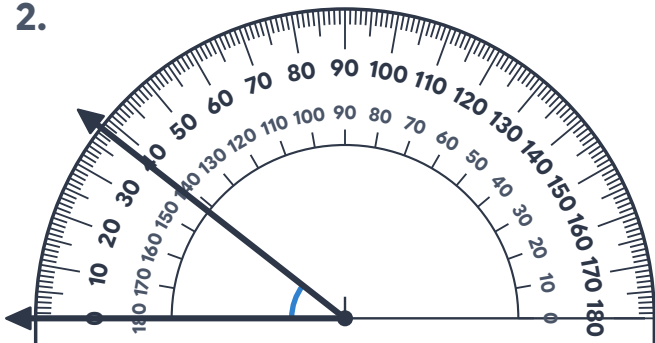
50°

1.



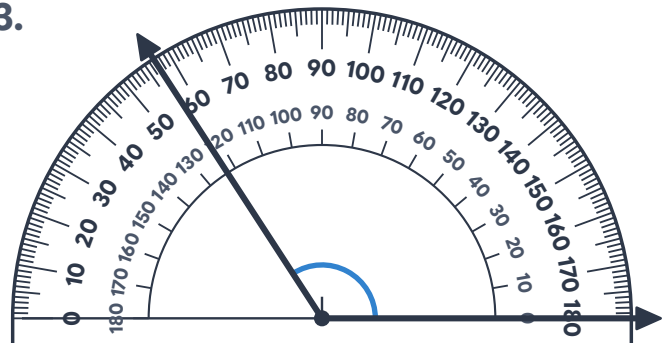
135°

2.



38°

3.



123°

Is the angle acute or obtuse? Circle the measure that makes sense.

Example



40°
140°

4.



65°
115°

5.



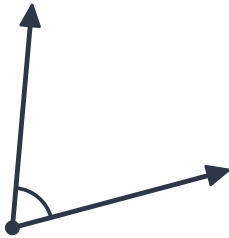
20°
160°

Measuring Angles

Measure each angle with your protractor.

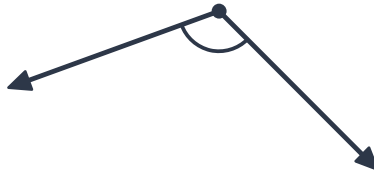
Measure each angle. Make a ray longer if it does not reach the scale.

Example



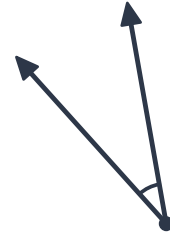
70°

1.



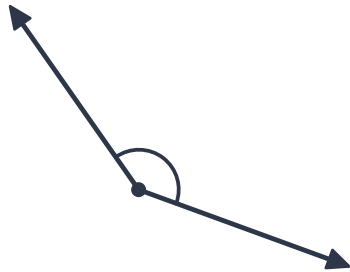
115°

2.



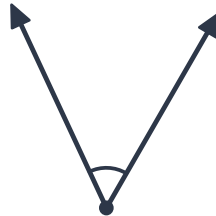
32°

3.



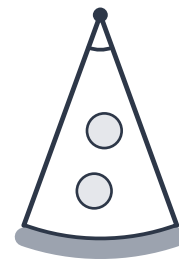
145°

4.



55°

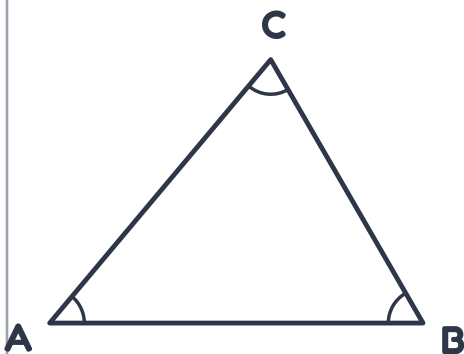
5.



40°

Measure the angles inside each shape.

6.

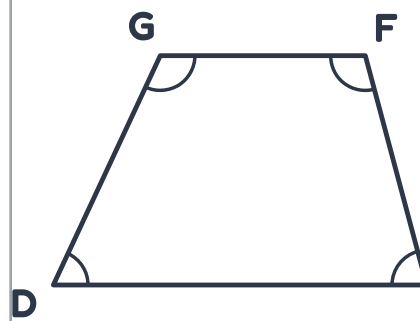


A = 50°

B = 60°

C = 70°

7.



D = 65°

E = 75°

F = 105°

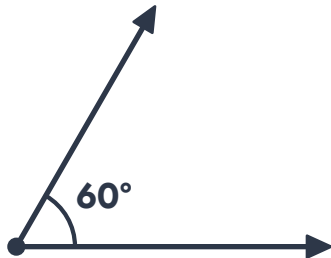
G = 115°

Measuring Angles

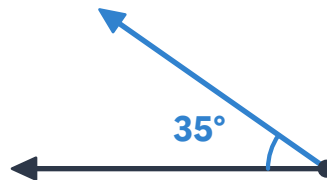
Draw each angle with your protractor.

Put the center of the protractor on the dot. Draw the second ray.

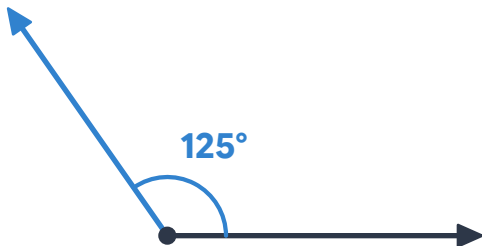
Example Draw a 60° angle.



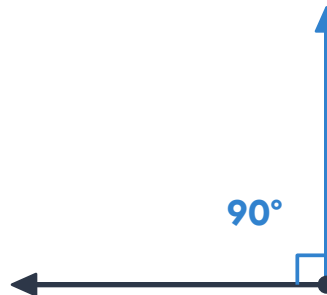
1. Draw a 35° angle.



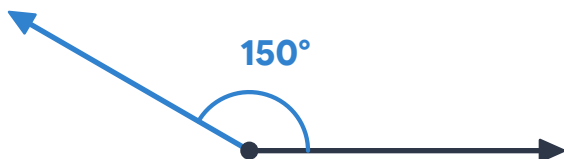
2. Draw a 125° angle.



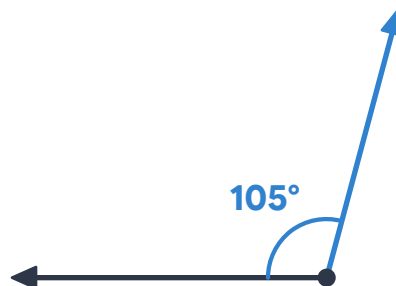
3. Draw a 90° angle.



4. Draw a 150° angle.



5. Draw a 105° angle.

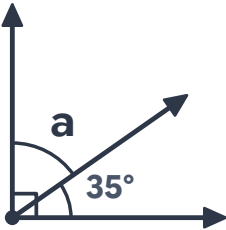


Measuring Angles

The parts of an angle add up to the whole angle.

A right angle is 90° . A straight angle is 180° . Write an equation, then solve.

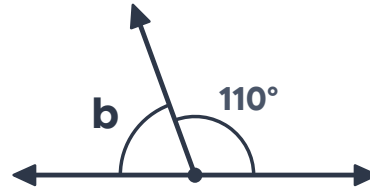
Example



$$a = 55^\circ$$

$$\text{Equation: } 35 + a = 90$$

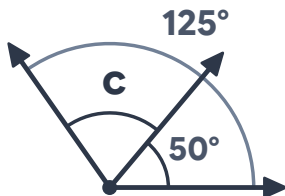
1.



$$b = 70^\circ$$

$$\text{Equation: } 110 + b = 180$$

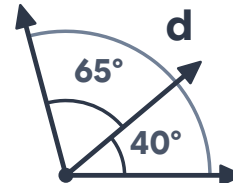
2.



$$c = 75^\circ$$

$$\text{Equation: } 50 + c = 125$$

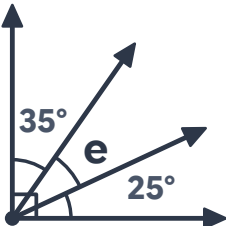
3.



$$d = 105^\circ$$

$$\text{Equation: } 40 + 65 = d$$

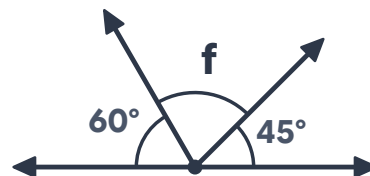
4.



$$e = 30^\circ$$

$$\text{Equation: } 25 + e + 35 = 90$$

5.



$$f = 75^\circ$$

$$\text{Equation: } 45 + f + 60 = 180$$

Solve. Write the answer in degrees.

Example

A door is open 35° . Ana pushes it 40° more. How far open is the door now?

$$75^\circ$$

6. A fan turns through 180° . So far it has turned 65° . How many more degrees will it turn?

$$115^\circ$$