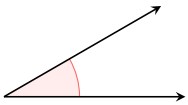
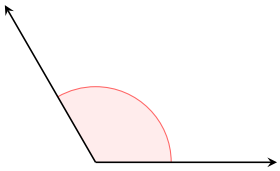
ANGLES

A WHAT IS AN ANGLE?

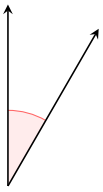
A.1 COMPARING ANGLES

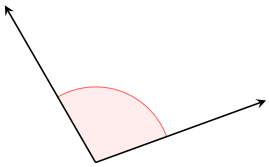
MCQ 1: Which angle has the greater measure?

☐ Angle A: 

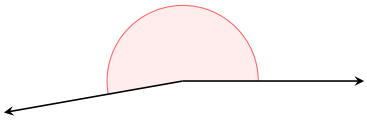
☐ Angle B: 

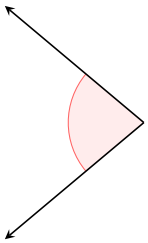
MCQ 2: Which angle has the greater measure?

☐ Angle A: 

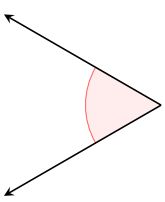
☐ Angle B: 

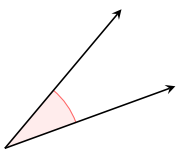
MCQ 3: Which angle has the greater measure?

☐ Angle A: 

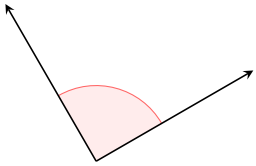
☐ Angle B: 

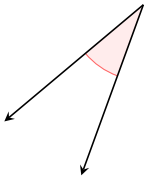
MCQ 4: Which angle has the greater measure?

☐ Angle A: 

☐ Angle B: 

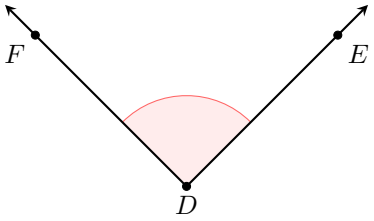
MCQ 5: Which angle has the greater measure?

☐ Angle A: 

☐ Angle B: 

A.2 NAMING ANGLES WITH THREE POINTS

MCQ 6: Which option correctly names the marked angle using three-point notation?

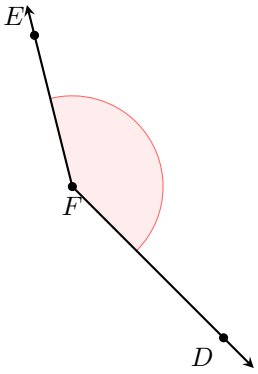


☐ $\angle DEF$

☐ $\angle FDE$

☐ $\angle DFE$

MCQ 7: Which option correctly names the marked angle using three-point notation?

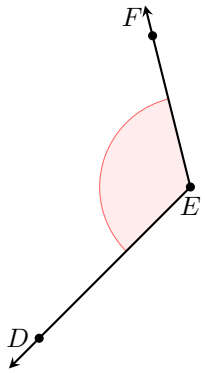


☐ $\angle DEF$

☐ $\angle FDE$

☐ $\angle DFE$

MCQ 8: Which option correctly names the marked angle using three-point notation?

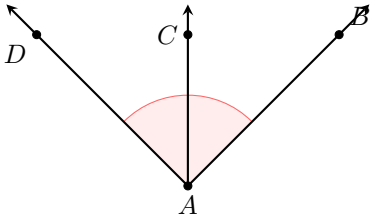


☐ $\angle DEF$

☐ $\angle FDE$

☐ $\angle DFE$

MCQ 9: Which option correctly names the marked angle using three-point notation?



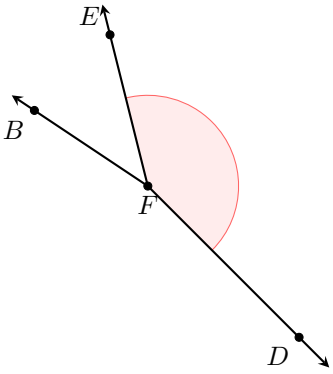
☐ $\angle ADC$

☐ $\angle CAB$

☐ $\angle DAB$

☐ $\angle DAC$

MCQ 10: Which option correctly names the marked angle using three-point notation?



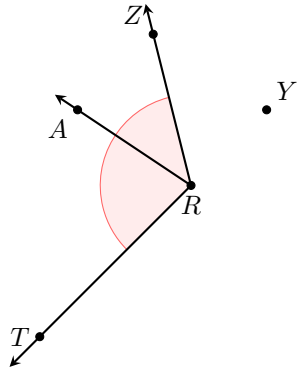
☐ $\angle BFD$

☐ $\angle FDE$

☐ $\angle DFE$

☐ $\angle BFE$

MCQ 11: Which option correctly names the marked angle using three-point notation?



☐ $\angle TRY$

☐ $\angle ZRT$

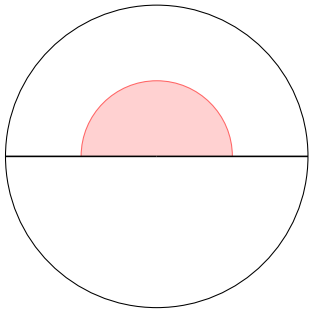
☐ $\angle ZRA$

☐ $\angle RZT$

B DEGREES

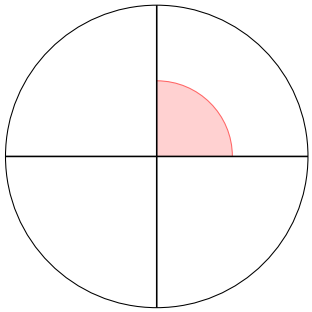
B.1 DIVIDING THE FULL TURN

Ex 12:



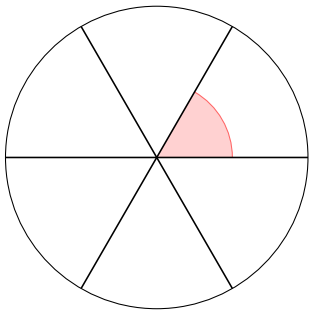
One-half of a full turn measures ☐°.

Ex 13:



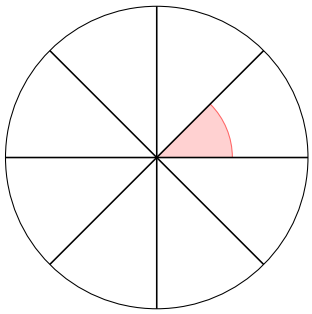
One-quarter of a full turn measures ☐°.

Ex 14:



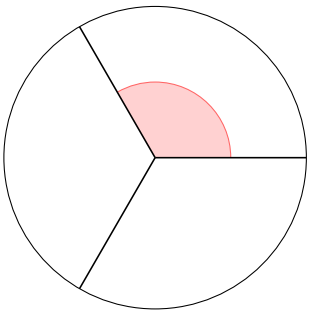
One-sixth of a full turn measures ☐°.

Ex 15:



One-eighth of a full turn measures ☐°.

Ex 16:

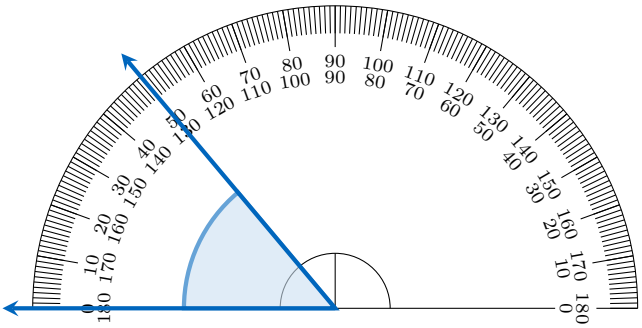


One-third of a full turn measures ☐°.

C MEASURING AND DRAWING ANGLES WITH A PROTRACTOR

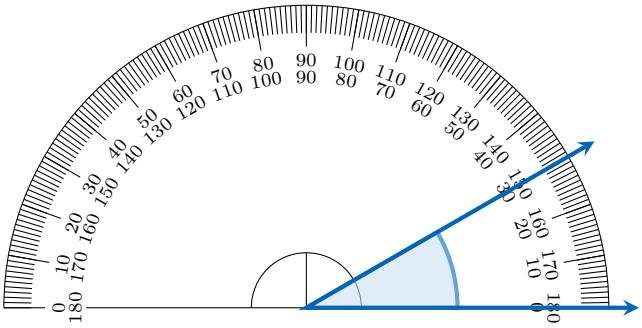
C.1 MEASURING ANGLES

Ex 17:



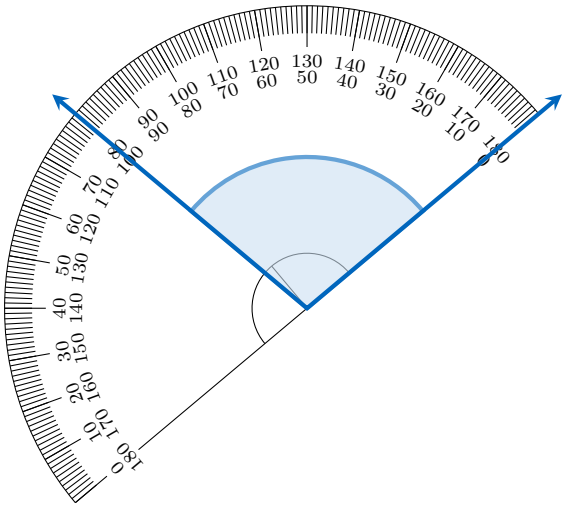
The angle shown measures ☐°.

Ex 18:



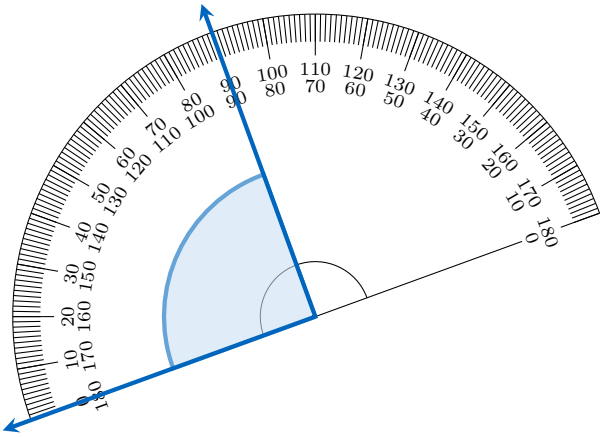
The angle shown measures ☐°.

Ex 19:



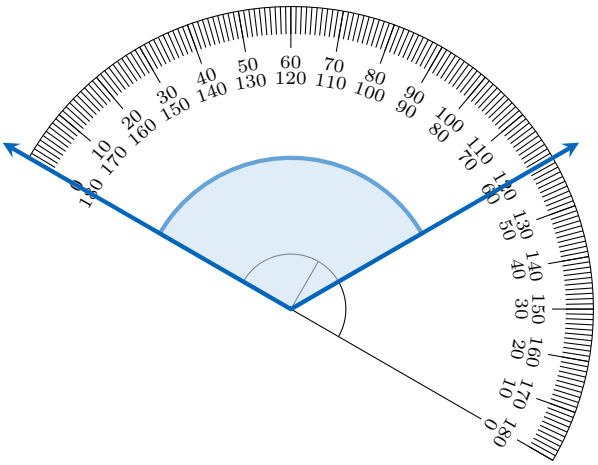
The angle shown measures ☐°.

Ex 20:



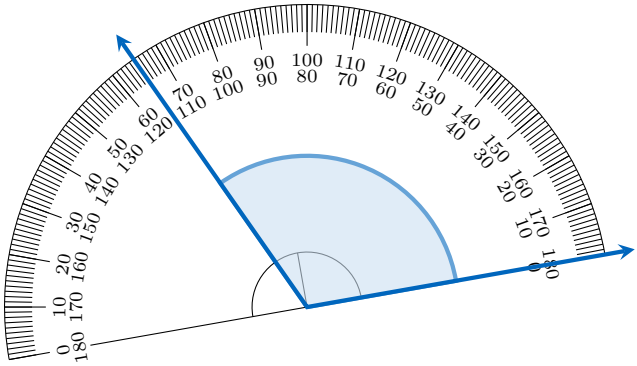
The angle shown measures ☐°.

Ex 21:



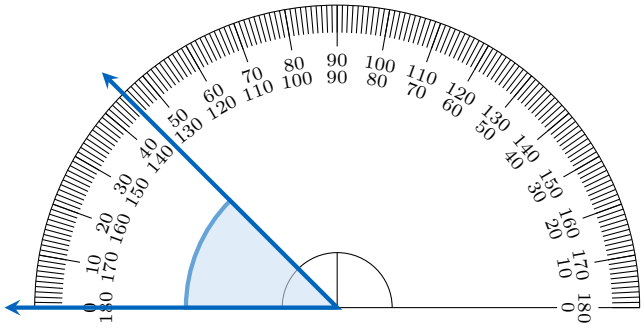
The angle shown measures ☐°.

Ex 22:



The angle shown measures ☐°.

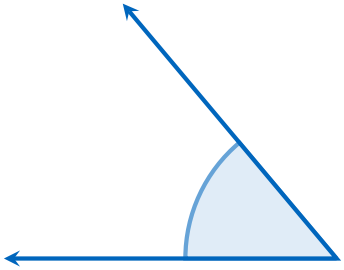
Ex 23:



The angle shown measures ☐°.

C.2 MEASURING ANGLES

MCQ 24: Using a protractor, find the measure of the angle shown.



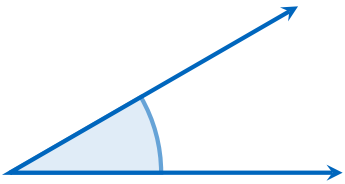
☐ 30°

☐ 50°

☐ 90°

☐ 130°

MCQ 25: Using a protractor, find the measure of the angle shown.



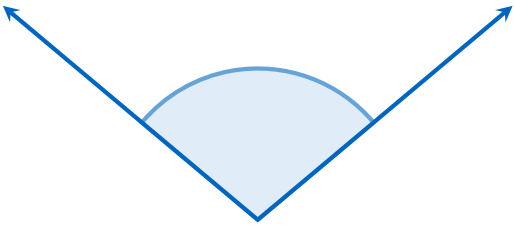
☐ 30°

☐ 50°

☐ 90°

☐ 130°

MCQ 26: Using a protractor, find the measure of the angle shown.



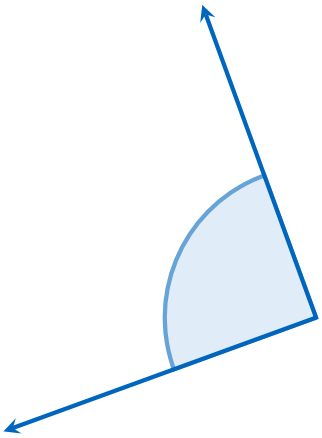
☐ 30°

☐ 50°

☐ 100°

☐ 130°

MCQ 27: Using a protractor, find the measure of the angle shown.



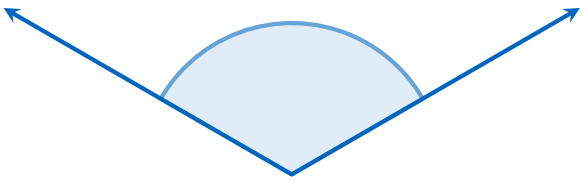
☐ 30°

☐ 50°

☐ 90°

☐ 130°

MCQ 28: Using a protractor, find the measure of the angle shown.



☐ 30°

☐ 50°

☐ 90°

☐ 120°

C.3 CONSTRUCTING ANGLES

Ex 29: Using a pencil, a ruler, and a protractor, draw an angle that measures 90°.

Ex 30: Using a pencil, a ruler, and a protractor, draw an angle that measures 60°.

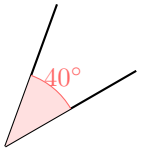
Ex 31: Using a pencil, a ruler, and a protractor, draw an angle that measures 120°.

Ex 32: Using a pencil, a ruler, and a protractor, draw an angle that measures 45°.

D CLASSIFICATION OF ANGLES

D.1 IDENTIFYING ANGLE TYPES BY MEASURE

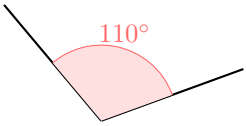
MCQ 33: What is the nature of the marked angle?



Choose one answer:

- ☐ Acute angle
- ☐ Right angle
- ☐ Obtuse angle
- ☐ Straight angle

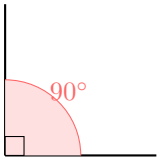
MCQ 34: What is the nature of the marked angle?



Choose one answer:

- ☐ Acute angle
- ☐ Right angle
- ☐ Obtuse angle
- ☐ Straight angle

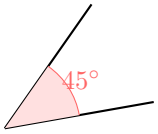
MCQ 35: What is the nature of the marked angle?



Choose one answer:

- ☐ Acute angle
- ☐ Right angle
- ☐ Obtuse angle
- ☐ Straight angle

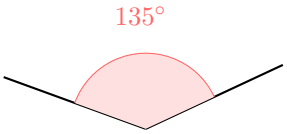
MCQ 36: What is the nature of the marked angle?



Choose one answer:

- ☐ Acute angle
- ☐ Right angle
- ☐ Obtuse angle
- ☐ Straight angle

MCQ 37: What is the nature of the marked angle?

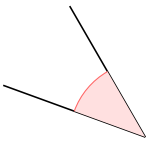


Choose one answer:

- ☐ Acute angle
- ☐ Right angle
- ☐ Obtuse angle
- ☐ Straight angle

D.2 IDENTIFYING ANGLE TYPES

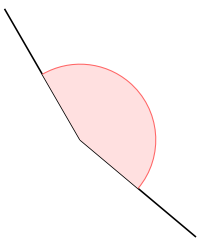
MCQ 38: Identify the type of the highlighted angle.



Choose one answer:

- ☐ acute angle
- ☐ right angle
- ☐ obtuse angle
- ☐ straight angle

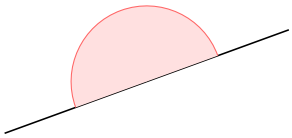
MCQ 39: Identify the type of the highlighted angle.



Choose one answer:

- ☐ acute angle
- ☐ right angle
- ☐ obtuse angle
- ☐ straight angle

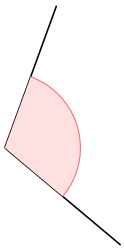
MCQ 40: Identify the type of the highlighted angle.



Choose one answer:

- ☐ acute angle
- ☐ right angle
- ☐ obtuse angle
- ☐ straight angle

MCQ 41: Identify the type of the highlighted angle.



Choose one answer:

- ☐ acute angle
- ☐ right angle
- ☐ obtuse angle
- ☐ straight angle

D.3 CONSTRUCTING ANGLE TYPES

Ex 42: Using a pencil, a ruler, and a protractor, draw an acute angle.

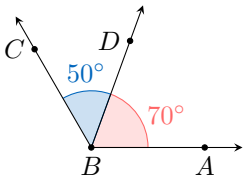
Ex 43: Using a pencil, a ruler, and a protractor, draw an obtuse angle.

Ex 44: Using a pencil, a ruler, and a protractor, draw a right angle.

E ANGLE ADDITION

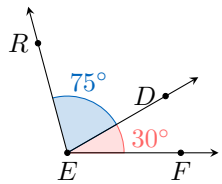
E.1 ADDING ANGLES

Ex 45: Calculate the measure of $\angle ABC$.



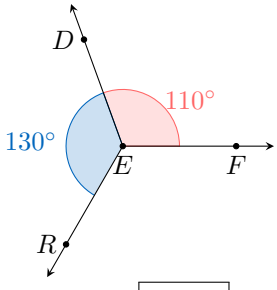
$\angle ABC =$ ☐°

Ex 46: Calculate the measure of $\angle FER$.



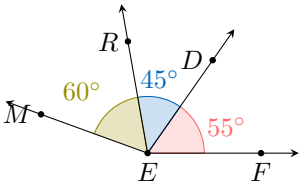
$\angle FER =$ ☐°

Ex 47: Calculate the measure of $\angle FER$.



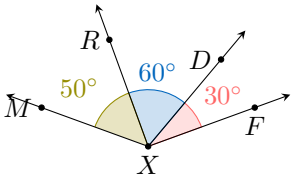
$\angle FER =$ ☐°

Ex 48: Calculate the measure of $\angle FEM$.



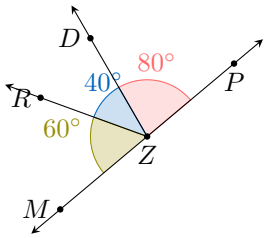
$\angle FEM =$ ☐°

Ex 49: Calculate the measure of $\angle FXM$.



$\angle FXM =$ ☐°

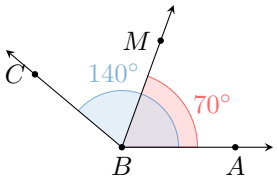
Ex 50: Calculate the measure of $\angle MZP$.



$\angle MZP =$ ☐°

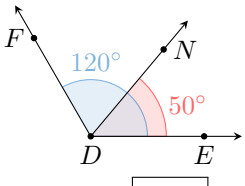
E.2 SUBTRACTING ANGLES

Ex 51: Calculate the measure of $\angle CBM$.



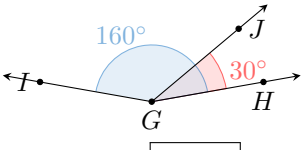
$\angle CBM =$ ☐°

Ex 52: Calculate the measure of $\angle FDN$.



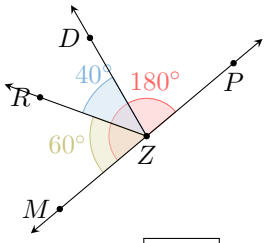
$\angle FDN =$ ☐°

Ex 53: Calculate the measure of $\angle IGJ$.



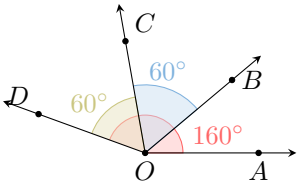
$\angle IGJ =$ ☐°

Ex 54: Calculate the measure of $\angle DZP$ by subtracting the known angles from the larger angle using the angle addition postulate.



$\angle DZP =$ ☐°

Ex 55: Calculate the measure of $\angle AOB$ by subtracting the known angles from the larger angle using the angle addition postulate.

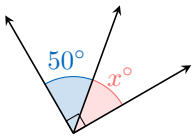


$\angle AOB =$ ☐°

F ANGLE PROPERTIES

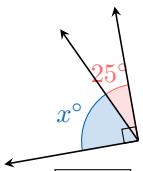
F.1 CALCULATING AN UNKNOWN ANGLE IN A RIGHT ANGLE

Ex 56: Calculate the measure of the unknown angle.



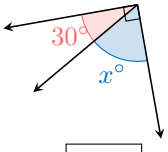
$x° =$ ☐°

Ex 57: Calculate the measure of the unknown angle.



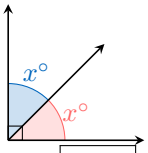
$x° =$ ☐°

Ex 58: Calculate the measure of the unknown angle.



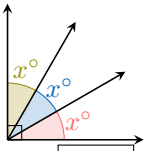
$x° =$ ☐°

Ex 59: Calculate the measure of the unknown angle.



$x° =$ ☐°

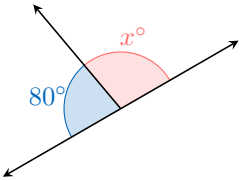
Ex 60: Calculate the measure of the unknown angle.



$x° =$ ☐°

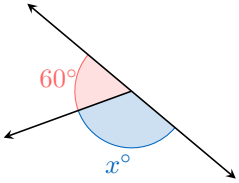
F.2 CALCULATING AN UNKNOWN ANGLE IN A STRAIGHT ANGLE

Ex 61: Calculate the measure of the unknown angle.



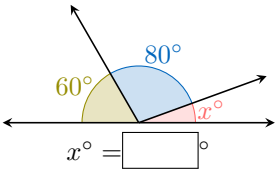
$x° =$ ☐°

Ex 62: Calculate the measure of the unknown angle.



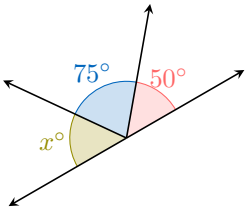
$x° =$ ☐°

Ex 63: Calculate the measure of the unknown angle.



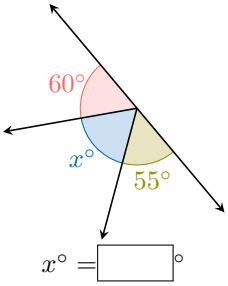
$x° =$ ☐°

Ex 64: Calculate the measure of the unknown angle.



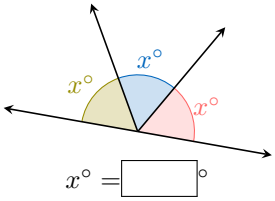
$x° =$ ☐°

Ex 65: Calculate the measure of the unknown angle.



$x° =$ ☐°

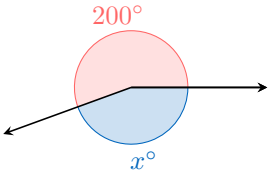
Ex 66: Calculate the measure of the unknown angle.



$x° =$ ☐°

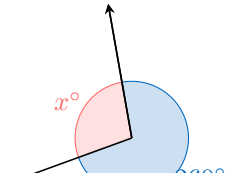
F.3 CALCULATING AN UNKNOWN ANGLE IN A FULL ANGLE

Ex 67: Calculate the measure of the unknown angle.



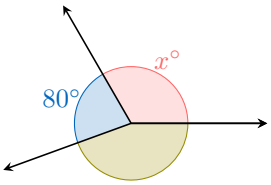
$x° =$ ☐ °

Ex 68: Calculate the measure of the unknown angle.



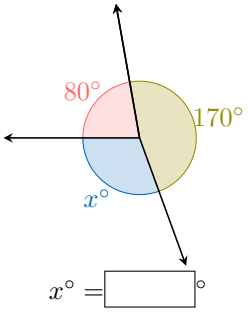
$x° =$ ☐ °

Ex 69: Calculate the measure of the unknown angle.



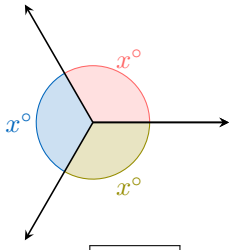
$x° =$ ☐ °

Ex 70: Calculate the measure of the unknown angle.



$x° =$ ☐ °

Ex 71: Calculate the measure of the unknown angle.



$x° =$ ☐ °