Section 1.1
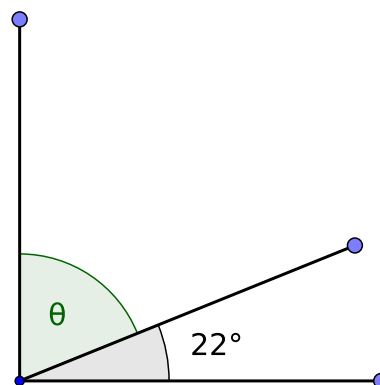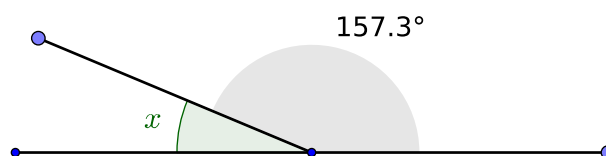Angles

COMPLEMENTARY AND SUPPLEMENTARY ANGLES

1. Find the complement and supplement of an angle measuring $38°$.
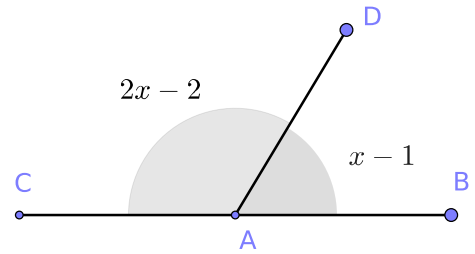
2. Find θ in the picture below.

3. Find x in the picture below.

4. Find x in the picture below. Then find the angles $\angle DAB$ and $\angle DAC$.

$2x - 2$

$x - 1$

D

C

B

A

DEGREES, MINUTES, AND SECONDS

In this section, we will gain practice on converting DMS angles to Decimal Degrees (DD) and vice-versa Decimal Degrees to DMS angles. We will also practice adding and subtracting angles in DMS.

5. Convert $99°22'47''$ to DD.

6. $157°48'39'' + 95°36'42'' =$

7. Find the complement of an angle measuring $38°12'18''$.

8. Convert 22.128° to DMS.

Coterminal Angles

9. Find the coterminal angle of the least possible positive measure for an angle of 1106°.

10. Find the coterminal angle of least possible positive measure for an angle for an angle of −650°.

Revolutions per Second Applications

11. If a record spins at 33 1/3 revolutions per minute, through how many degrees does it rotate in 17 seconds?

12. If a gear rotates through 187° in 30 seconds, how many rotations does it make in an hour?