## Angles Pairs

Complementary angles are two angles whose sum is $90^{\circ}$.
Supplementary angles are two angles whose sum is $180^{\circ}$.
Linear Pair - two adjacent angles whose exterior sides lie in a line, they are supplementary.

1. If $\angle \mathrm{A}$ and $\angle \mathrm{B}$ are complementary angles and $\mathrm{m} \angle \mathrm{A}=60^{\circ}$, find $\mathrm{m} \angle \mathrm{B}$.
2. If $\angle \mathrm{X}$ and $\angle \mathrm{Y}$ are complementary angles and $\mathrm{m} \angle \mathrm{A}=70^{\circ}$, find the complement of $\angle \mathrm{X}$.
3. If $\angle \mathrm{P}$ and $\angle \mathrm{Q}$ are complementary angles and $\mathrm{m} \angle \mathrm{P}=(2 \mathrm{x}+10)^{\circ}$ and the $\mathrm{m} \angle \mathrm{Q}=(3 \mathrm{x}+20)^{\circ}$, find the value of x .
4. If $\angle \mathrm{A}$ and $\angle \mathrm{B}$ are supplementary angles and $\mathrm{m} \angle \mathrm{A}=120^{\circ}$, find $\mathrm{m} \angle \mathrm{B}$.
5. If $\angle \mathrm{X}$ and $\angle \mathrm{Y}$ are supplementary angles and $\mathrm{m} \angle \mathrm{A}=110^{\circ}$, find the complement of $\angle \mathrm{X}$.
6. If $\angle \mathrm{P}$ and $\angle \mathrm{Q}$ are supplementary angles and $\mathrm{m} \angle \mathrm{P}=(2 \mathrm{x}+10)^{\circ}$ and the $\mathrm{m} \angle \mathrm{Q}=(3 \mathrm{x}+20)^{\circ}$, find the value of x .
7. Using the picture, find the value of x .

8. If $\mathrm{m} \angle \mathrm{T}=60^{\circ}$, find the value of x , if its complement is given by $(5 x+10)^{\circ}$.
9. If $m \angle A=100^{\circ}$, find the value of $x$, if its supplement is given by $(4 x+20)^{\circ}$.
10. If $\mathrm{m} \angle \mathrm{D}=(3 \mathrm{x}-10)^{\circ}$ and $\mathrm{m} \angle \mathrm{E}=(4 \mathrm{x}-20)^{\circ}$ and $\angle \mathrm{D}$ and $\angle \mathrm{E}$ are a linear pair, find the value of $x$.
