## ANGLES DETERMINED BY A TRANSVERSAL MEETING TWO OTHER LINES

In these drawings, $\mathbf{D}$ and $\mathbf{E}$ lie on one side of the line $\mathbf{A B}$, while $\mathbf{C}$ and $\mathbf{F}$ lie on the opposite side (all within some fixed plane); in the discussion below, points $\mathbf{X}$ and $\mathbf{Y}$ are such that $\mathbf{X} * \mathbf{A} * \mathbf{B}$ and $\mathbf{Y} * \mathbf{B} * \mathbf{A}$. In each drawing the related pairs of angles have matching colors.


Pairs of alternate interior angles ( $\angle C A B$ and $\angle A B D, \angle E A B$ and $\angle A B F$ )


Pairs of alternate exterior angles ( $\angle \mathrm{CAX}$ and $\angle \mathrm{YBD}, \angle \mathrm{EAX}$ and $\angle \mathrm{YBF}$ ) (Vertical angle pairs in this and the preceding drawing are in matching colors)


Pairs of corresponding angles
( $\angle \mathrm{CAX}$ and $\angle \mathrm{FBA}, \angle \mathrm{EAX}$ and $\angle \mathrm{DBA}, \angle \mathrm{CAB}$ and $\angle \mathrm{FBY}, \angle \mathrm{EAB}$ and $\angle \mathrm{DBY}$ )


Pairs of consecutive angles ( $\angle \mathrm{CAB}$ and $\angle \mathrm{FBA}, \angle \mathrm{EAB}$ and $\angle \mathrm{DBA}$ )

