EX 1)  Given: $X$ is the midpoint of $\overline{AY}$ , $Y$ is the midpoint of $\overline{XB}$

Prove: $\overline{AX} \cong \overline{YB}$

$A$        $X$        $Y$        $B$

| STATEMENTS | REASONS |
|---|---|
|  |  |

EX 2)  Given: $\overline{BE} \cong \overline{CE}$ , $\overline{DE} \cong \overline{AE}$

Prove: $\overline{AB} \cong \overline{CD}$

$D$

$E$
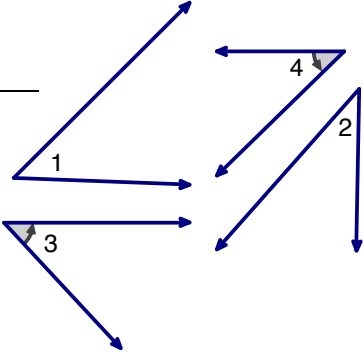
$A$        $B$

$C$
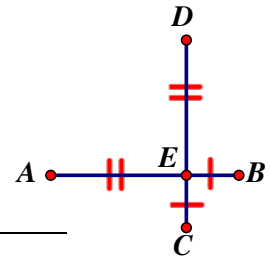
| STATEMENTS | REASONS |
|---|---|
|  |  |

EX 3)  Given:  $\angle 1$ and $\angle 3$ are complementary,  $\angle 2$ and $\angle 4$ are complementary,
$\qquad\qquad \angle 3 \cong \angle 4$
$\qquad$ Prove:  $\angle 1 \cong \angle 2$

| STATEMENTS | REASONS |
|---|---|
|  |  |

EX 4)  Given that $\overline{AC} \cong \overline{BD}$, prove that $\overline{AB} \cong \overline{CD}$.

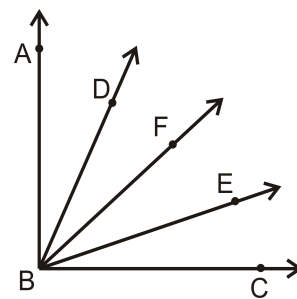A     B         C    D

| STATEMENTS | REASONS |
| --- | --- |
|  |  |

EX 5)  Given: $\overrightarrow{BF}$ bisects $\angle ABC$, $\angle ABD \cong \angle EBC$

Prove: $\angle DBF \cong \angle FBE$



| STATEMENTS | REASONS |
|---|---|
|  |  |