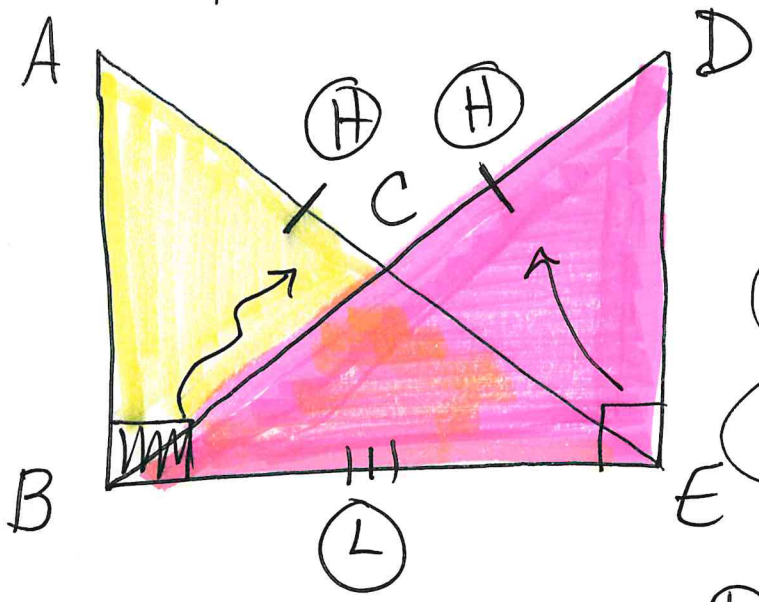
10/20

# Lesson 26: Triangle Proofs

ie 1




Given: not bisector

$\overline{AB} \perp \overline{BE}$

$\overline{BE} \perp \overline{DE}$

Prove: $\triangle BEA \cong \triangle BED$

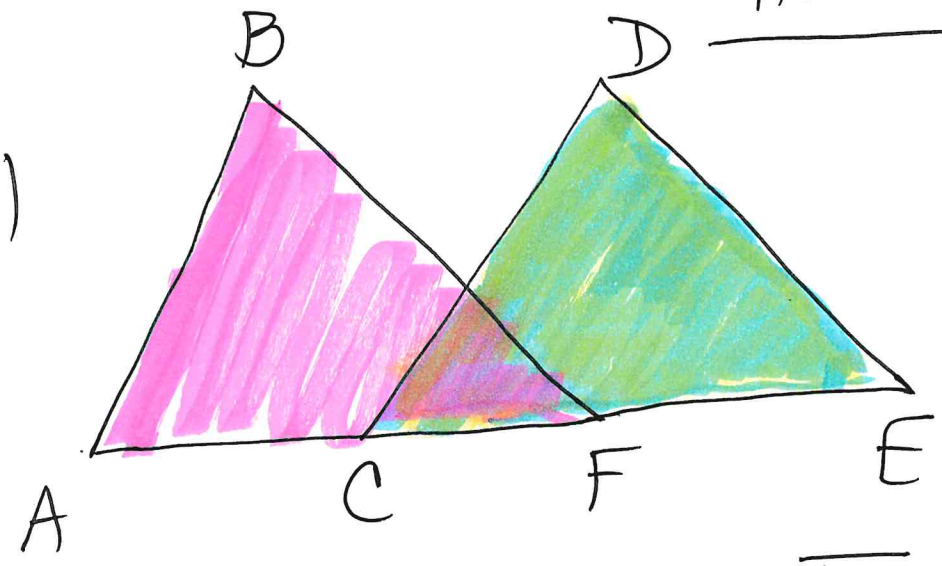
| Statements | Reasons |
|---|---|
| (1) See Above | (1) Given |
| (2) $\overline{AE} \cong \overline{BD}$ | (2) corr. sides ($\cong$) |
| (3) $\overline{BE} \cong \overline{BE}$ | (3) Reflexive |
| (4) $\angle ABE \cong \angle DEB$ | (4) Right $\angle$ |
| (5) $\triangle BEA \cong \triangle BED$ | (5) HL 90° |

# Lesson 26

Name: _____

HR: _____

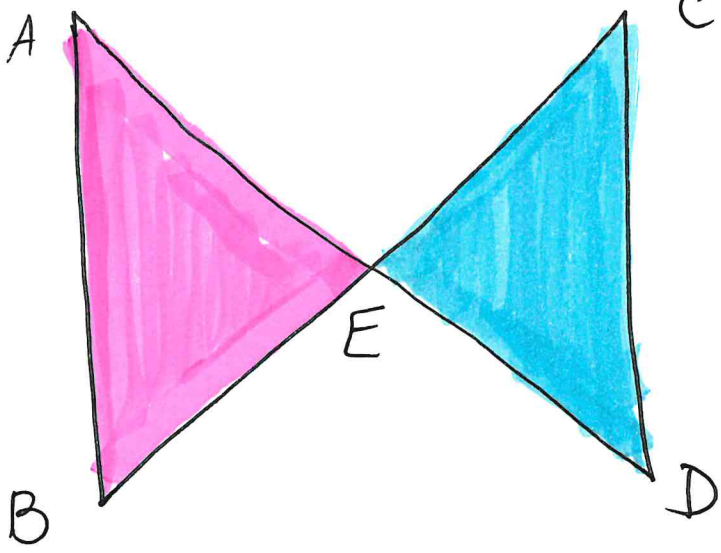
1.)




Given: $\overline{AB} \parallel \overline{CD}$; $\overline{AF} \cong \overline{CE}$; $\angle B \cong \angle D$

Prove: $\triangle ABF \cong \triangle CDE$

| Statements | Reasons |
|---|---|
| (1) See Above | (1) Given |
| (2) | (2) |
| (3) | (3) |
| (4) | (4) |
| (5) $\triangle ABF \cong \triangle CDE$ | (5) |

2) 


Given ▷ $\overline{AB} \parallel \overline{CD}$

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

prove ▷ $\triangle ABE \cong \triangle DCE$

| Statements | Reasons |
| --- | --- |
| ① | ① |
| ② | ② |
| ③ | ③ |
| ④ | ④ |
| ⑤ | ⑤ |