

2) \overline{EB}

4) a statement

1. $\angle ABC \cong \angle CBE$

2. $\overline{CB} \perp \overline{AF}$

3. $\overline{DE} \perp \overline{AF}$

4. $\overline{CB} \parallel \overline{DE}$

Reasons

1. Given

2. Lin. Pair of \cong \angle s \rightarrow lines are \perp

3. Given

4. If 2 lines \perp to the same line \rightarrow lines are \parallel

8) statement

1) $\overline{AB} \perp \overline{BC}$

2. $m\angle 1 + m\angle 2 = 180^\circ$

3. $\angle 1$ and $\angle 2$ are supp

4. $\overline{AB} \parallel \overline{DC}$

5. $\overline{BC} \perp \overline{CD}$

Reason

1. Given

2. given

3. Def of supp.

4. (conv. of SS. Int \angle s Thm)

5. \perp transv. Thm

6) \overline{WY}

10) $x < 2x - 5$

$-2x - 2x$

$-x < -5$

$x > 5$

12) $3y - 2x = 90^\circ$

$\frac{2x}{2} = \frac{90^\circ}{2}$

$x = 45^\circ$

$3y - 2(45) = 90^\circ$

$3y - 90^\circ = 90^\circ$

$3y = 180$

$y = 60^\circ$

14) $(2x + y = 90^\circ) \cdot 4 \rightarrow 8x + 4y = 360^\circ$

$10x - 4y = 90^\circ \rightarrow 10x - 4y = 90^\circ$

$18x = 450$

$x = 25$

$2x + y = 90$

$2(25) + y = 90$

$50 + y = 90$

$y = 40$

32) $4x + 10y = 90^\circ$

$-2(11x + 5y = 90) \rightarrow -22x - 10y = -180$

$-18x = -90$

$x = 5$

(F)