

Prove Figures \cong Using Rigid Motion/CPCFC

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(4) There is no sequence of rigid motions that will map one figure onto the other.
 \therefore they're NOT \cong .

(9) Given $\triangle CDE \cong \triangle WXY$

- (1) Rotation of 180° around the origin $(x, y) \rightarrow (-x, -y)$
- (2) Translation $(x, y) \rightarrow (x-1, y)$

(14) Yes, $\triangle JKL \cong \triangle WXY$ b/c there is a sequence of rigid motions that will map $\triangle JKL$ to $\triangle WXY$.

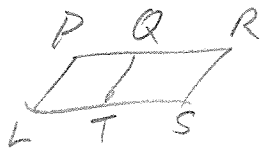
- (1) Clockwise rotation of 90° around origin
 $(x, y) \rightarrow (y, -x)$

- (2) Translation $(x, y) \rightarrow (x+1, y+6)$

(28) choice C - only one with a dilation

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(14)



(1) Quad $PQTU \cong$ Quad $QRST \rightarrow$ (2) $\overline{PQ} \cong \overline{QR} \rightarrow$ (3) Q midpt of \overline{PR}

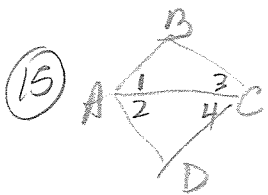
(1) Given

(2) CPCFC

(3) If a pt \div segmt into 2 \cong parts, it's midpt.

(4) If a line goes thru midpt, it's a seg bisector.

(4) \overline{QT} bisects \overline{PR} .



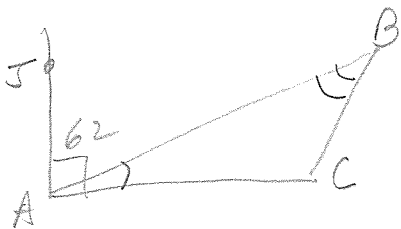
① $\triangle ABC \cong \triangle ADC \rightarrow \begin{cases} \textcircled{2} \angle 1 \cong \angle 2 \\ \angle 3 \cong \angle 4 \end{cases} \rightarrow \textcircled{3} \overline{AC} \text{ bisects } \angle BAD \text{ and } \angle BCD.$

① Given

② CPCFC

③ If line \div an \angle into 2 \cong parts, it's an \angle bisector.

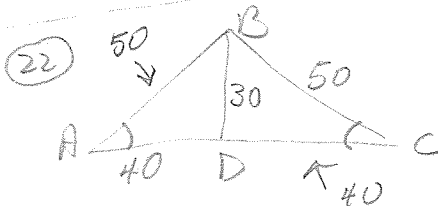
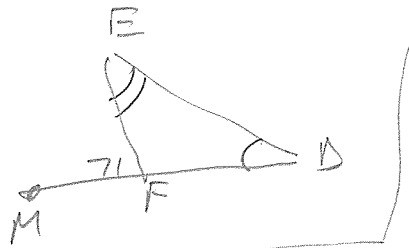
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$\triangle ABC \cong \triangle DEF$

$m\angle D = 28^\circ$

$m\angle C = 109^\circ$

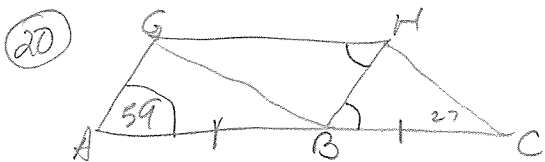


$\triangle ABD \cong \triangle CBD$

$50 + 50 + 40 = 140 \text{ ft.}$

$\frac{D}{S} = t \quad \frac{140}{15} \approx 9.3 \text{ sec.}$

19 1700 ft.



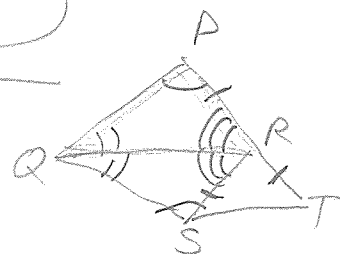
$\triangle ABG \cong \triangle BCH \cong \triangle HGB$

a) Yes, $m\angle GBH = 94^\circ$

b) Yes, $\overline{AB} \cong \overline{BC}$ b/c CPCFC
So B is midpt of \overline{AC} .
So AC is twice AB.

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- a) T
 - b) F
 - c) F
 - d) F
 - e) T

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G: $\triangle PQR \cong \triangle SQR$
 $\overline{RS} \cong \overline{RT}$

- ① $\triangle PQR \cong \triangle SQR$ Given
- ② $\overline{RP} \cong \overline{RS}$ CPCFC
- ③ $\overline{RS} \cong \overline{RT}$ Given
- ④ $\overline{RP} \cong \overline{RT}$ Transitive
- ⑤ R is midpt of \overline{PT} Midpt divides seg into 2 \cong parts