

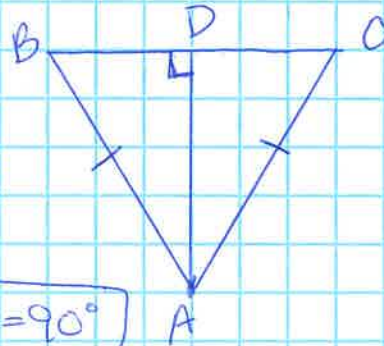
homework 7-75 to 7-81

7-75

- a) $SSS \cong$ b) not enough info
 c) $ASA \cong$ d) $HL \cong$

7-76

Given: $\overline{AB} = \overline{AC}$
 $\angle BDA = \angle CDA = 90^\circ$



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↓ Given

$\triangle BAD$ and $\triangle CAD$ are right triangles

↓ def of right triangles

$\overline{AB} = \overline{AC}$
 Given

$\overline{DA} = \overline{AD}$

reflexive

$\triangle BAD \cong \triangle CAD$

HL \cong

7-77

a) $46 + 37 = 83$
 $180 - 83 = 97$

$180 - 97 = 83^\circ$

b) 135
 -43

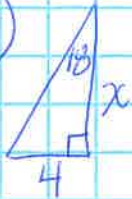
92°

[7-78]

a) yes $HL \cong$

b) 18° ; 4

c)



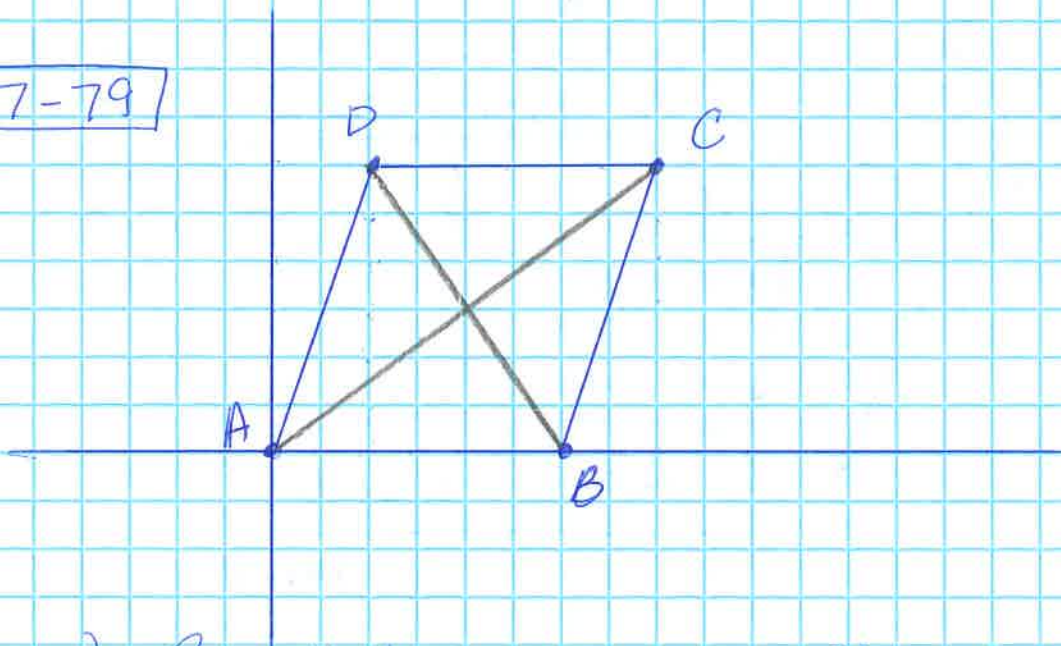
$$\tan 18 = \frac{4}{x}$$

$$x \approx 12.31$$
$$AD \approx 12.31$$

$$d) A = \frac{1}{2} (8)(12.31)$$

$$A \approx 49.24 \text{ cm}^2$$

[7-79]



a) Parallelogram opposite sides are \parallel

b) \overline{AC}
 $(0,0)$ $m = \frac{6}{8} = \frac{3}{4}$

$$0 = \frac{3}{4}(0) + b$$
$$0 = b$$

$$y = \frac{3}{4}x$$

$$\overline{BD}$$
$$m = \frac{-6}{4} = -\frac{3}{2} \quad (6,0)$$

$$0 = -\frac{3}{2}(6) + b$$

$$0 = -9 + b$$
$$9 = b$$

$$y = -\frac{3}{2}x + 9$$

7-80

a) $\sqrt{68}$ is between $\sqrt{64}$ and $\sqrt{81}$
so $\sqrt{68}$ is in between 8 and 9
closer to 8

$$\sqrt{68} \approx 8.25$$

b) $\sqrt{5}$ $\sqrt{85}$ $\sqrt{50}$ $\sqrt{22}$
b/t 2 and 3 9 and 10 7 and 8 4 and 5

7-81

a) $\frac{128}{2} = 64$

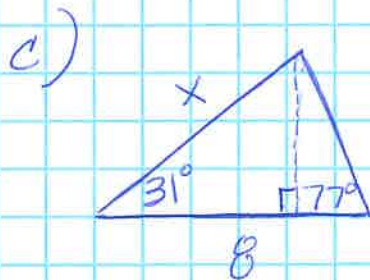
$x = 64$

b) $4x - 3 + 3x + 1 = 180$

$7x - 2 = 180$

$7x = 182$

$x = 26$



Need Law of Sines

Can't do

d)

$5x + 6 = 2x + 21$

$3x = 15$

$x = 5$

