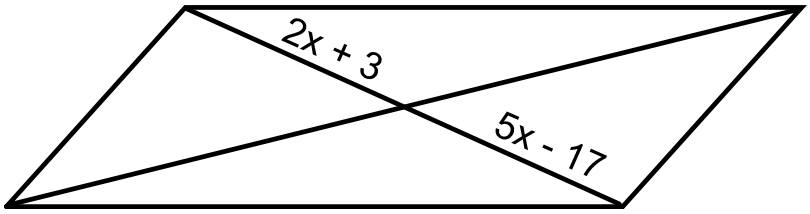
Warm-up 1/9/17
Find the value of x for this parallelogram.



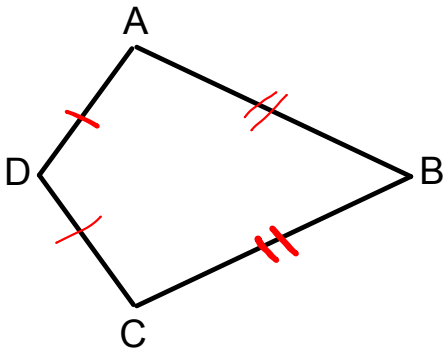
$2x+3=5x-17$

$2x=5x-20$

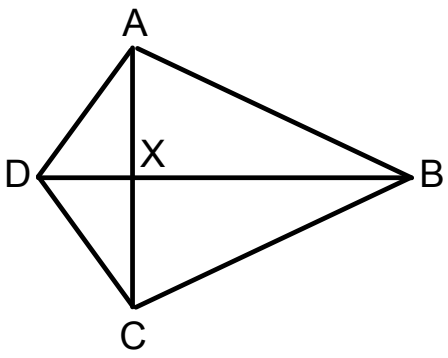
$-3x=-20$

$x=\frac{20}{3}=6\frac{2}{3}$

Pg. 510-511
Kite



$\angle A \cong \angle C$



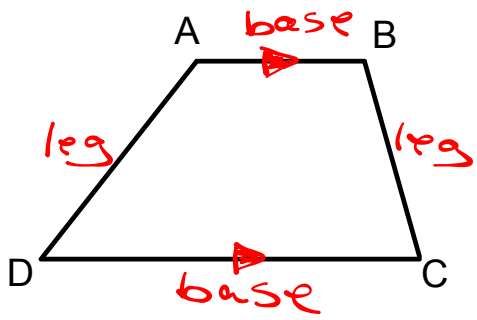
$\overline{AC} \perp \overline{DB}$

$\angle ADB \cong \angle CDB$

$\angle ABD \cong \angle CBD$

$\overline{AX} \cong \overline{CX}$

Pg. 513-515
Trapezoids

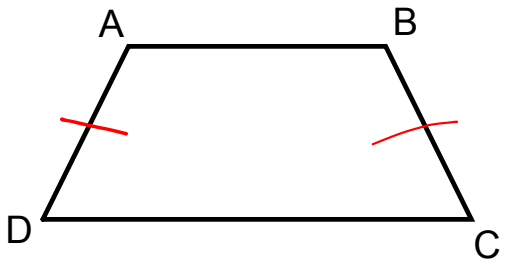


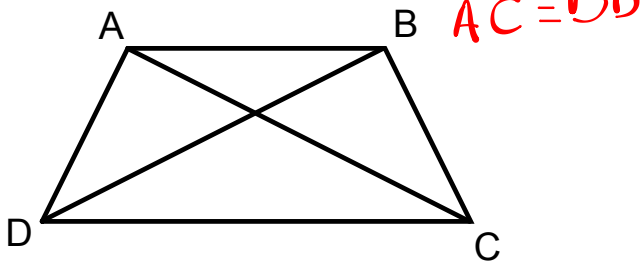
$m\angle A + m\angle D = 180$

$m\angle B + m\angle C = 180$

Isosceles Trapezoids

$\angle A \cong \angle B$
$\angle D \cong \angle C$





$\overline{AC} \cong \overline{BD}$

Pg. 516
Conditional
If A, then B.

Converse
If B, then A.

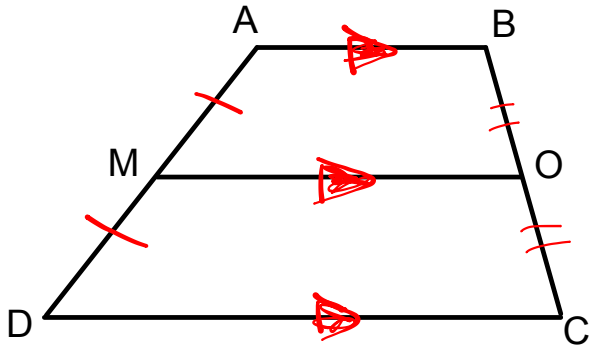
Biconditional
A if and only if B.

Conditional
If a trapezoid is isosceles, then the diagonals are congruent.

Converse
If the diagonals of a trapezoid are congruent, then it is isosceles.

Biconditional
A trapezoid is isosceles if and only if the diagonals are congruent.

Pg. 519-521
Midsegments of Trapezoids



$$mO = \frac{AB + DC}{2}$$

Pg. 523
1.

$$12^2 + 10^2 = c^2$$
$$244 = c^2$$
$$15.6 \approx \sqrt{244} = c$$

$$26^2 + 12^2 = c^2$$
$$676 + 144 = c^2$$
$$820 = c^2$$
$$28.6 \approx \sqrt{820} = c$$

$$2(15.6) + 2(28.6)$$
$$88.4$$