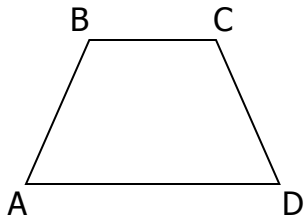
Name: _____ Date: _____

Section 5.5: Trapezoids Notes

Trapezoid: A quadrilateral with *exactly* _____ pair of _____ sides.

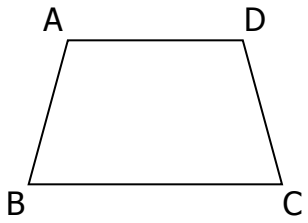
- _____: the parallel sides
- _____: the non-parallel sides



In trap ABCD, ∠A & ∠B and ∠C & ∠D are _____,

so they are _____.

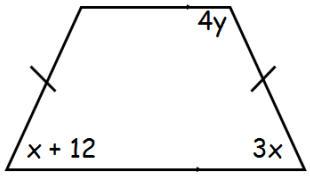
Isosceles Trapezoid: A trapezoid with _____ legs.



- **Theorem 5-18:** The base angles of an isos. trap are _____.

  If trap ABCD has $\overline{AB} \cong \overline{DC}$, then ∠ A ___ ∠D and ∠B ___ ∠C.

  Algebra Connection:



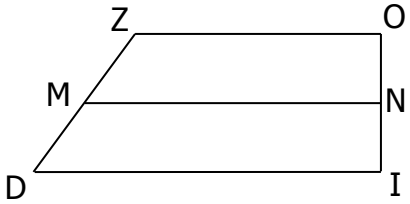
Median (*of a trap*): The segment that joins the _____ of the legs.

- **Theorem 5-19:**

  The median of a trapezoid

  (1) is _____ to the bases

  (2) has a length equal to the _____ of the base lengths.



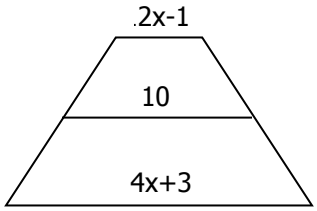
If trapezoid ZOID has median $\overline{MN}$, then

(1) $\overline{ZO}$ ___ $\overline{MN}$ ___ $\overline{DI}$

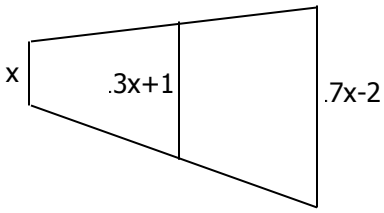
(2) MN = ___(ZO + DI) or _____

Each diagram shows a trapezoid and its median. Find the value of x.

1) x = _____



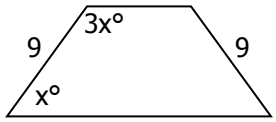
2) x = _____



Find the measure of each angle in the isosceles trapezoid.

3) One angle of an isosceles trapezoid has measure 48. Find the measures of the other angles.

4)



In △ABC, AX = XM = MB and AY = YN = NC.

5) If XY = 6, and BC = 18, then MN = _____

6) If XY = 12, then MN = _____

7) If XY = 9, then MN = _____ and BC = _____

8) If MN = 32, then XY = _____ and BC = _____

9) If XY = 8 and MN = x + 12, then x = _____ and BC = _____