Trapezoids and Classifying Quads Practice
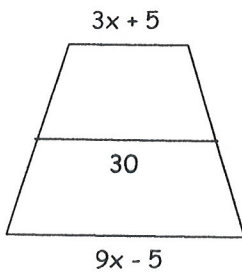
Name_____

Date_____ Block____

Given the isosceles trapezoid with its midsegment, find the value of x. *Diagrams are not drawn to scale.*
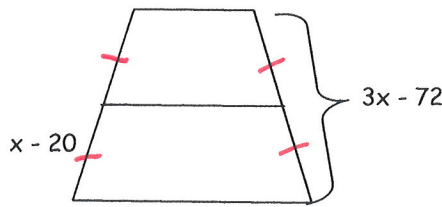
1. x = ___5___

3x + 5

30
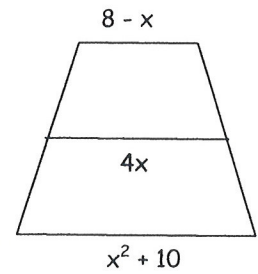
9x - 5

$3x+5+9x-5=60$
$12x=60$
$x=5$

2. x = ___32___

3x - 72

x - 20

$2(x-20)=3x-72$
$2x-40=3x-72$
$32=x$

3. x = __6 or 3__

8 - x

4x

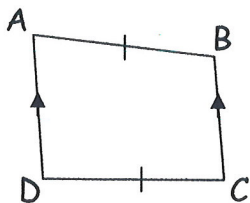$x^2 + 10$

$x^2+10+8-x=8x$
$x^2-9x+18=0$
$(x-6)(x-3)=0$
$x=6$ or 3

Put an X in the box if the shape ALWAYS has the given property.

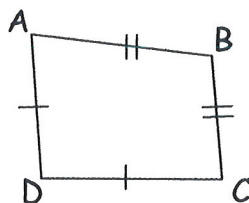| Property of the Quadrilateral	▱	Rectangle	Rhombus	Square	Trapezoid	Kite
4. The diagonals are ≅		X		X	Isos Trap!	
5. The diagonals are ⊥			X	X		X
6. The diagonals bisect each other	X	X	X	X		
7. All sides are congruent			X	X		
8. Consecutive angles are supplementary	X	X	X	X		
9. 1 pair of opposite angles are ≅						X
10. All angles are congruent		X		X		
11. The diagonals bisect opposite angles			X	X		

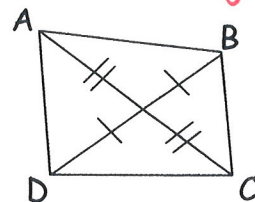Give the BEST name for the quadrilateral that meets the given conditions. It is not drawn to scale.
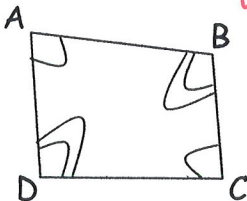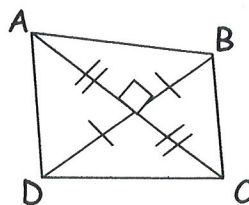
12. __Isosceles Trap.__

A   B
D   C

13. __Kite__

A   B
D   C

14. __Parallelogram__

A   B
D   C

15. __Parallelogram__

A   B
D   C

16. __Rhombus__

A   B
D   C

17. __Rectangle__

A   B
D   C