

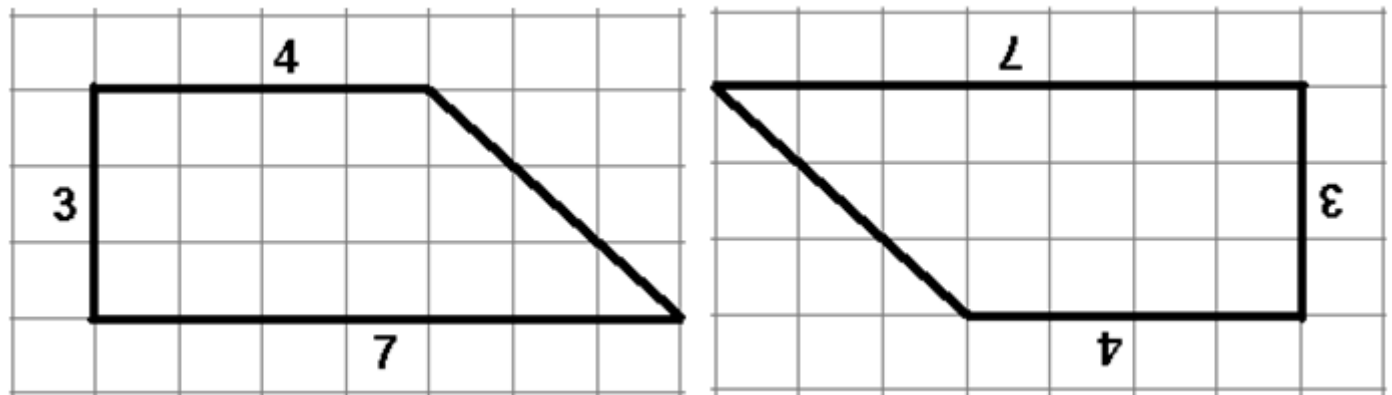
9.2 Area of a Triangle

Objective: To calculate the area of a triangle



Activity

- Take a trapezoid and see if you can make a rectangle or parallelogram

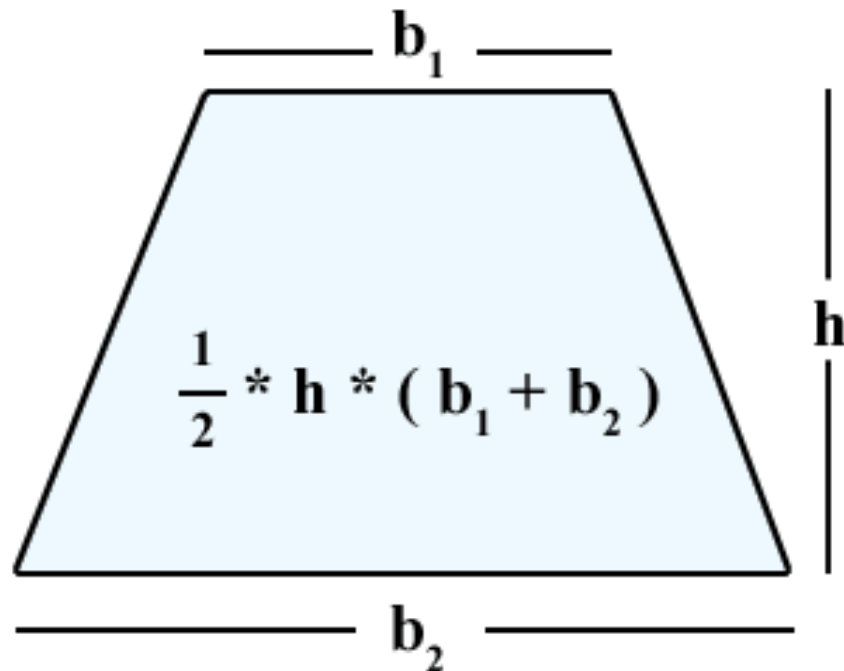


What do you think the formula for area of a trapezoid is?

Area of a Trapezoid

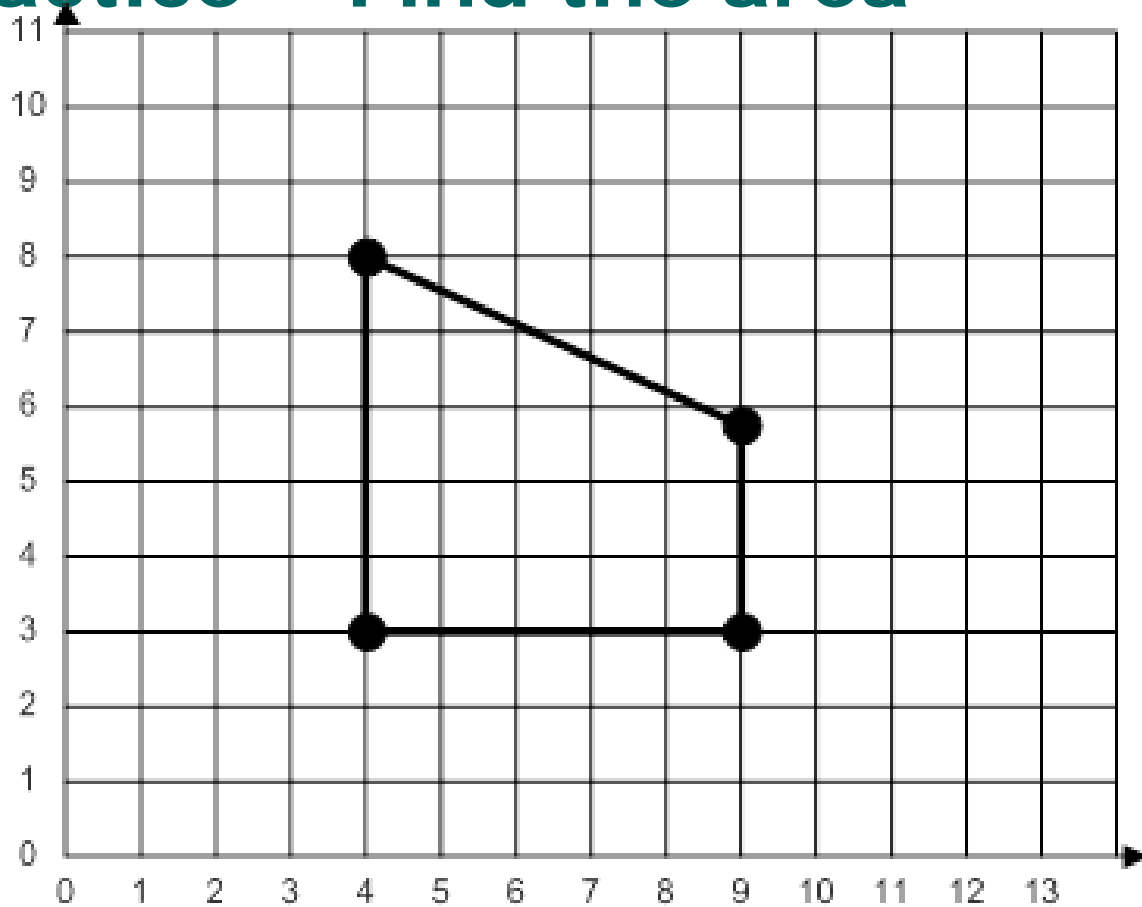
Area is one half height times (base₁ + base₂).

Height is from base₁ to base₂



Practice – Find the area

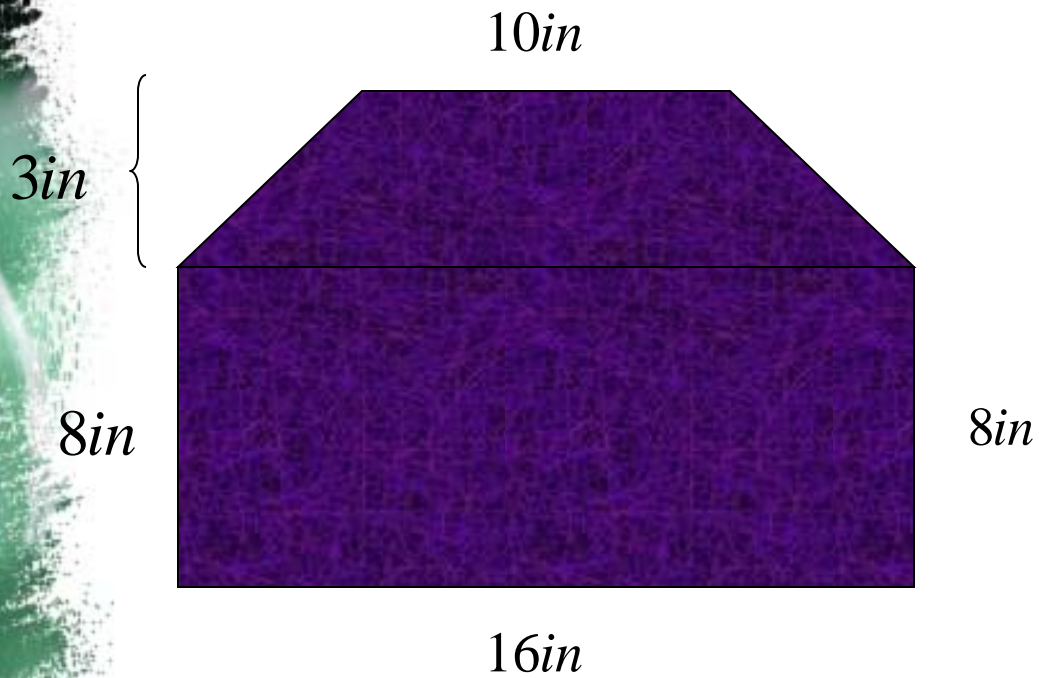
1)



Area = 20 square units

Find the Area

What is the total Area



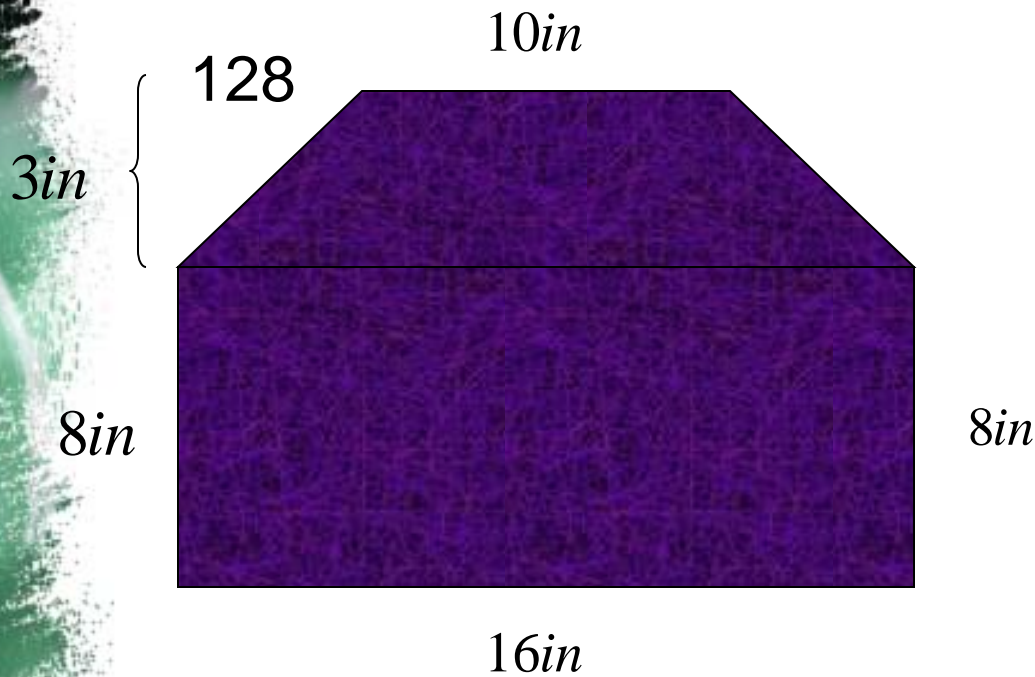
Find the Area

What is the total Area
39

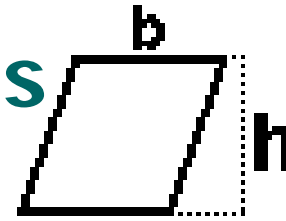
$$\text{Trap} = \frac{1}{2}(3)(10+16) =$$

$$\text{Rect.} = 8(16) =$$

Total =



Area of Quadrilaterals



Type of Quadrilateral	<u>Area Formula</u>
Parallelogram	$A = bh$
Rectangle	$A = bh$
Square	$A = s^2$
Rhombus	$A = bh$ (diagonals)
Trapezoid	$A = (1/2)h(b_1 + b_2)$
Irregular	Break into parts & add

Don't forget, the base and height must be perpendicular (90°)

Key:

b – base

h – height

s – side

b₁/b₂ – base₁/base₂

d₁/d₂ – diagonal₁/diagonal₂

