

**Pre-AP Secondary Math 1 Summer Homework
Gregori High School
2017-2018**

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Attached you will find your packet of summer work. Print all pages and complete on your own time. They will be turned in on the first block day of class in August. The work incorporates skills we wish all students starting Pre-AP Math 1 to have upon entering high school. Resource links are available under the Resources tab of the website.

If you have any questions, you may contact Mrs. Damas or Ms. Weber by email, listed above.

Websites:

Ms. Weber- <http://mswebermath.weebly.com/>

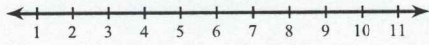
Mrs. Damas- <http://damasmath.weebly.com/>

We look forward to seeing you this fall! Thank you!

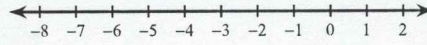
Solving Multi-Step Inequalities

Solve each inequality and graph its solution.

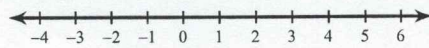
1) $-11 \geq 6 - 2n - 5$



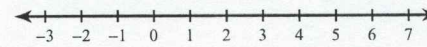
2) $0 > -5x - 6x$



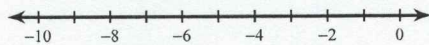
3) $x + 1 + 4 \leq 9$



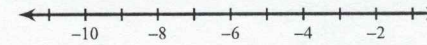
4) $-9 > -5n - 4n$



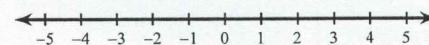
5) $5k - 2k > -9$



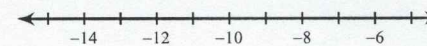
6) $-2 \geq 4p + 6 + 4$



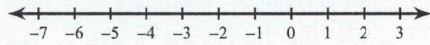
7) $30 - 6a < -3(5 + 7a)$



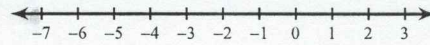
8) $33 + 4x \leq -(x + 7)$



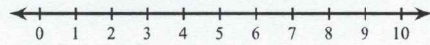
$$9) 2(6 + 4n) \geq 12 - 8n$$



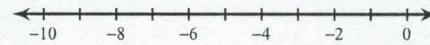
$$10) -5(2b + 7) + b < -b - 11$$



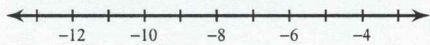
$$11) -33 - n \leq -3(2n + 1)$$



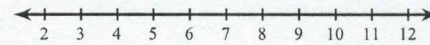
$$12) -3(-7p - 6) - 7 < p - 29$$



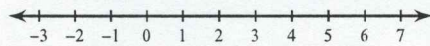
$$13) -x + 23 < 2 - 2(x - 8)$$



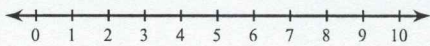
$$14) 32 - 5n \geq 7 - 5(n - 5)$$



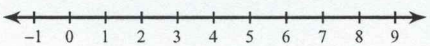
$$15) 12(10b - 9) > -12(9 + 8b)$$



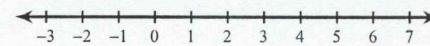
$$16) -2(k - 12) - 5(k + 2) < -9k + 4k$$



$$17) 8(1 + 8x) + 8(x - 11) < -10x + 2x$$



$$18) -2(9r + 3) - 7r \geq -10r - (12r + 9)$$



Multi-Step Equations

Solve each equation.

1) $6a + 5a = -11$

2) $-6n - 2n = 16$

3) $4x + 6 + 3 = 17$

4) $0 = -5n - 2n$

5) $6r - 1 + 6r = 11$

6) $r + 11 + 8r = 29$

7) $-10 = -14v + 14v$

8) $-10p + 9p = 12$

9) $42 = 8m + 13m$

10) $a - 2 + 3 = -2$

11) $18 = 3(3x - 6)$

12) $30 = -5(6n + 6)$

$$13) 37 = -3 + 5(x + 6)$$

$$14) -13 = 5(1 + 4m) - 2m$$

$$15) 4(-x + 4) = 12$$

$$16) -2 = -(n - 8)$$

$$17) -6(1 - 5v) = 54$$

$$18) 8 = 8v - 4(v + 8)$$

$$19) 10(1 + 3b) = -20$$

$$20) -5n - 8(1 + 7n) = -8$$

$$21) 8(4k - 4) = -5k - 32$$

$$22) -8(-8x - 6) = -6x - 22$$

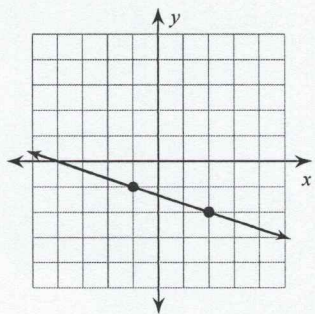
$$23) 8(1 + 5x) + 5 = 13 + 5x$$

$$24) -11 - 5a = 6(5a + 4)$$

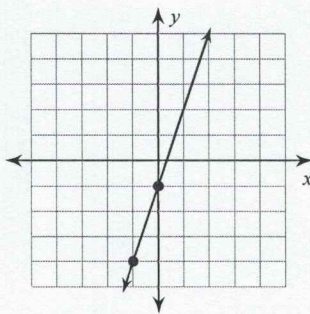
Slope

Find the slope of each line.

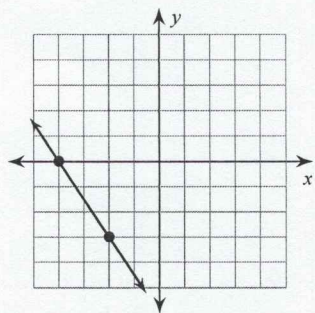
1)



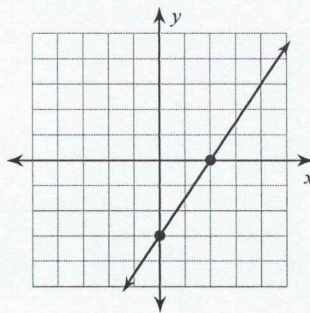
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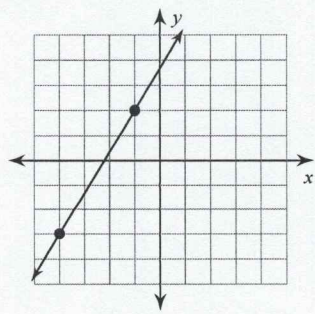
3)



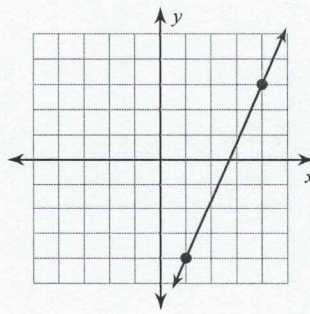
4)



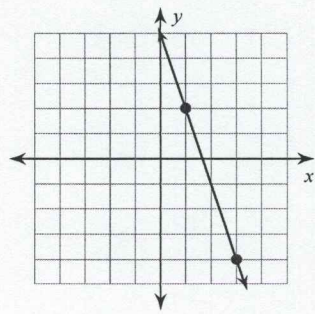
5)



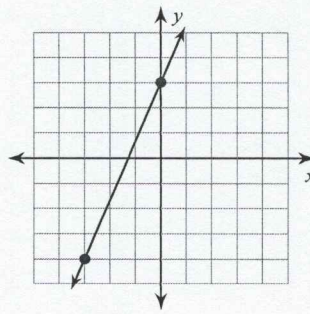
6)



7)



8)



Find the slope of the line through each pair of points.

9) $(8, 10), (-7, 14)$

10) $(-3, 1), (-17, 2)$

11) $(-20, -4), (-12, -10)$

12) $(-12, -5), (0, -8)$

13) $(-19, -6), (15, 16)$

14) $(-6, 9), (7, -9)$

15) $(-18, -20), (-18, -15)$

16) $(12, -18), (11, 12)$

Find the slope of each line.

17) $y = -5x - 1$

18) $y = \frac{1}{3}x - 4$

19) $y = -\frac{1}{5}x - 4$

20) $x = 1$

21) $y = \frac{1}{4}x + 1$

22) $y = -\frac{2}{3}x - 1$

23) $y = -x + 2$

24) $y = -x - 1$

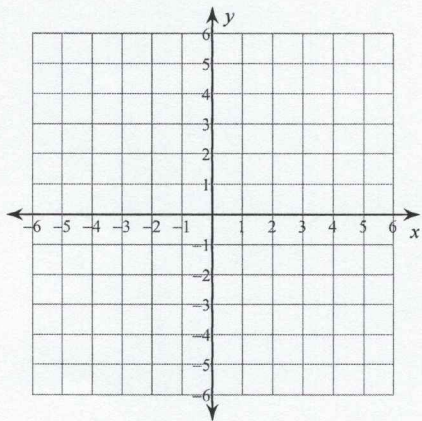
25) $2x + 3y = 9$

26) $5x + 2y = 6$

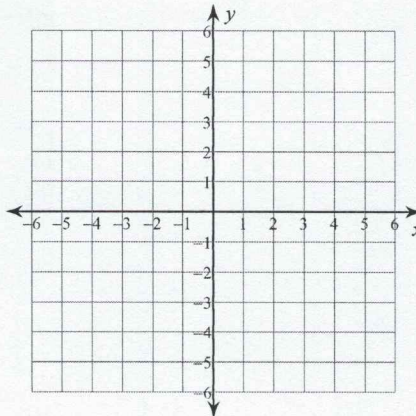
Graphing Lines in Slope-Intercept Form

Sketch the graph of each line.

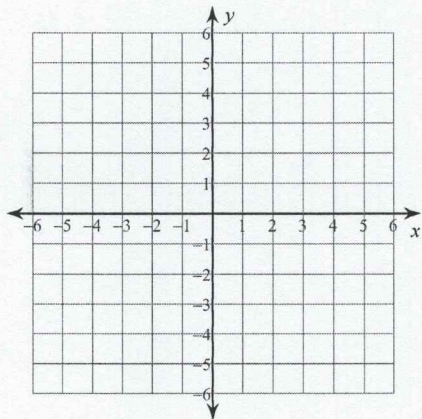
1) $y = \frac{1}{4}x - 1$



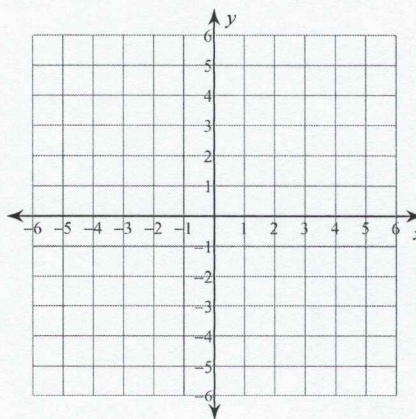
2) $y = -x + 2$



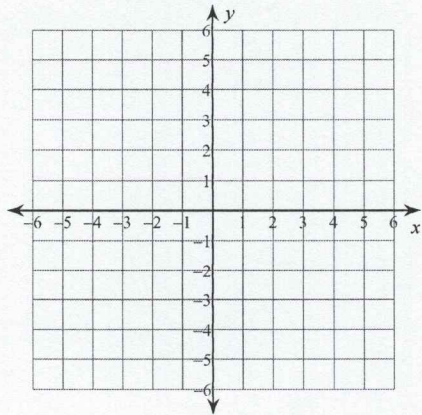
3) $y = x + 1$



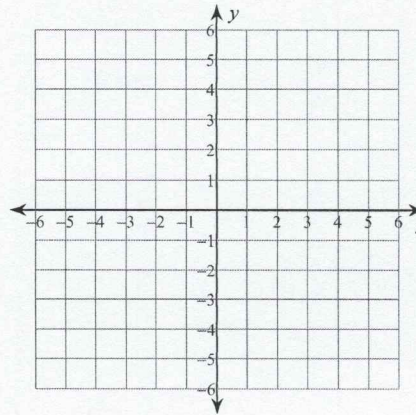
4) $y = \frac{4}{3}x - 4$



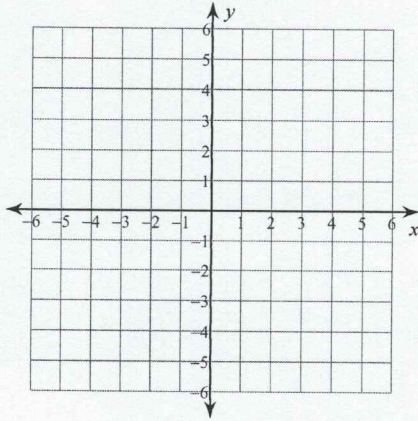
5) $y = -3x - 3$



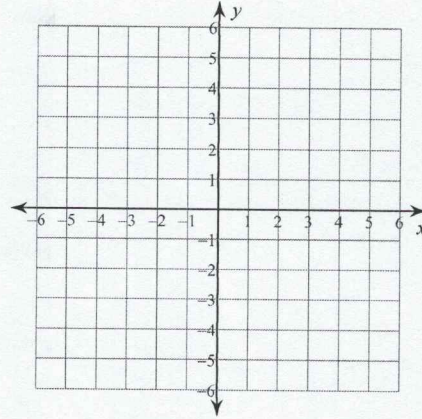
6) $y = 4$



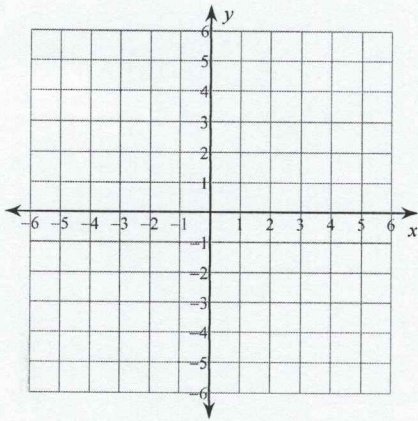
7) $y = \frac{3}{5}x - 1$



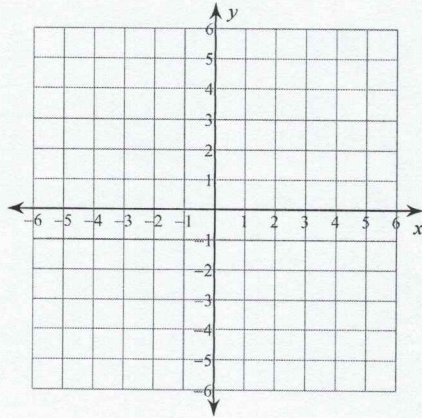
8) $x = 5$



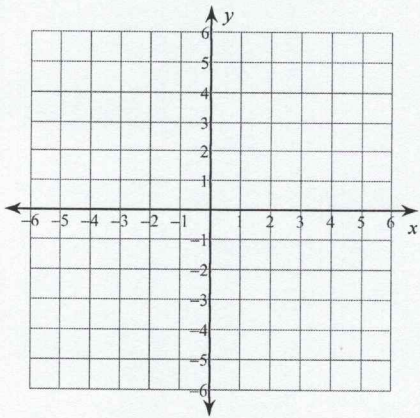
9) $y = 3$



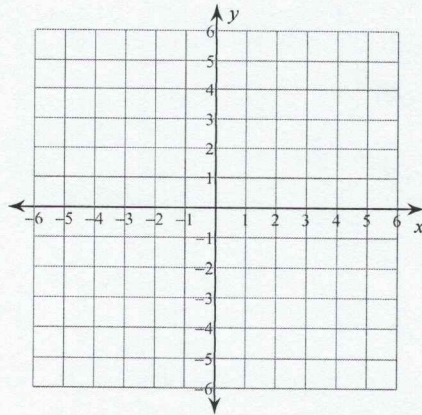
10) $y = 3x - 2$



11) $y = 4x + 3$



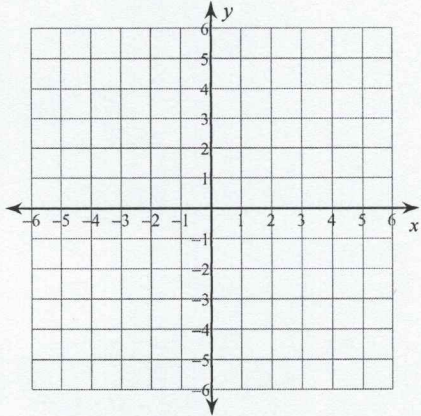
12) $y = \frac{6}{5}x + 5$



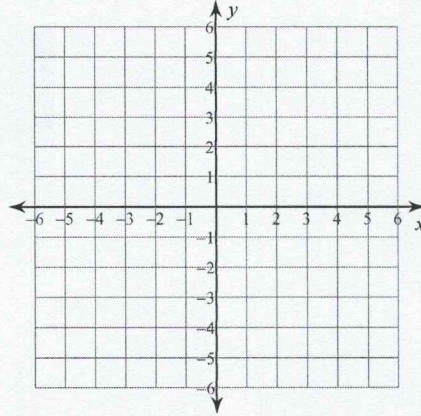
Graphing Lines in Standard Form

Sketch the graph of each line.

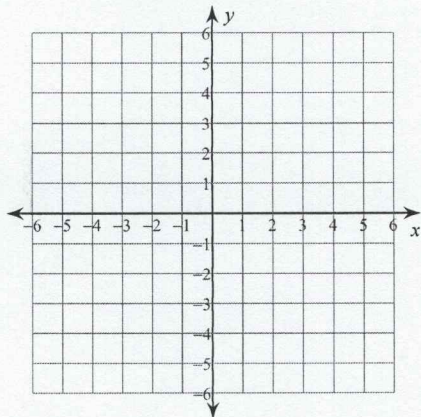
1) $4x + y = 0$



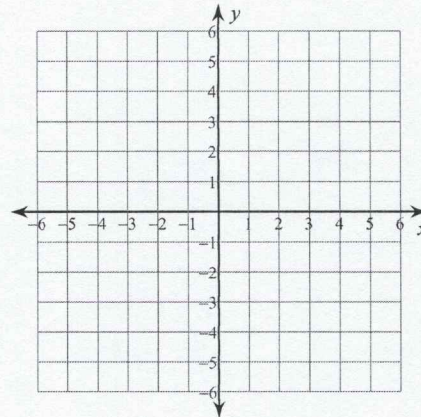
2) $10x - 3y = -15$



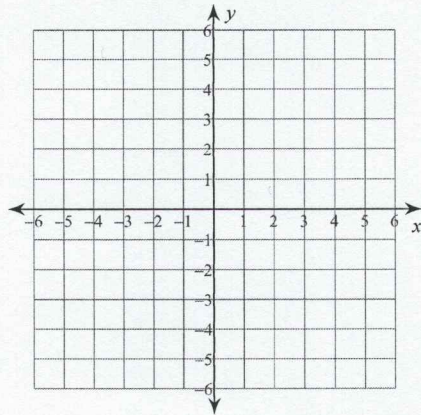
3) $x + y = -3$



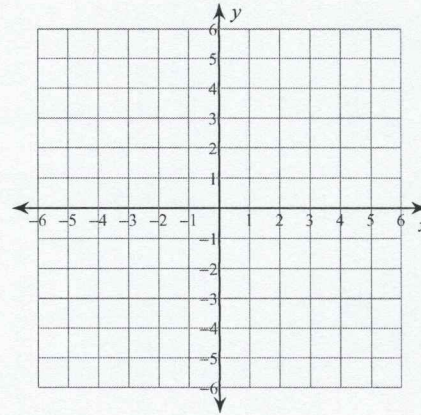
4) $x = 5$



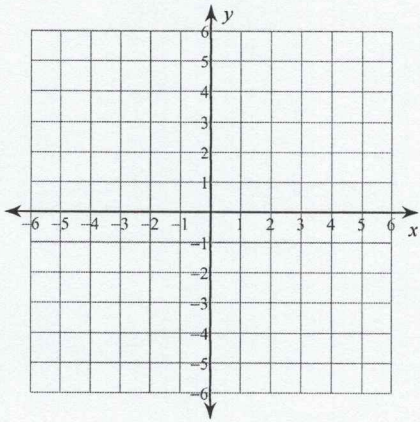
5) $7x + 2y = -10$



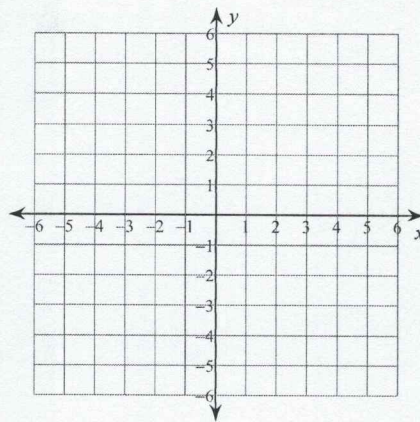
6) $x - 2y = -6$



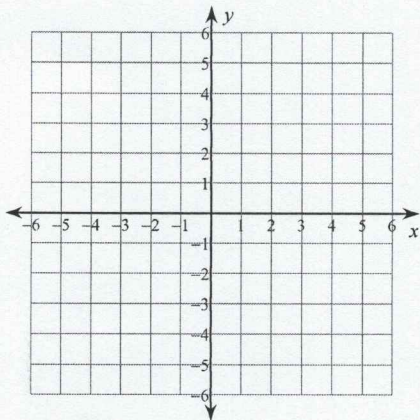
7) $x + y = 0$



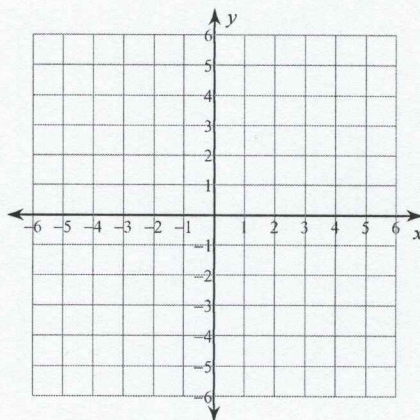
8) $9x + y = 4$



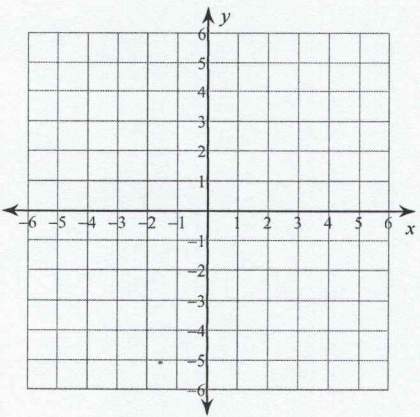
9) $y = 5$



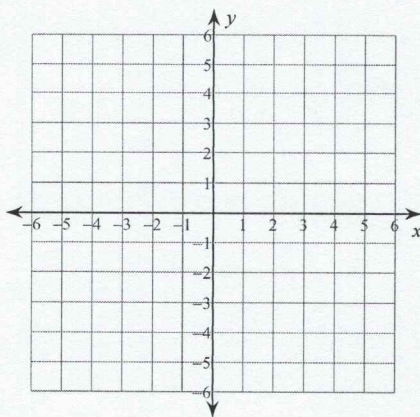
10) $x + 4y = -12$



11) $x - 3y = 3$

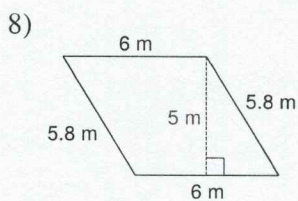
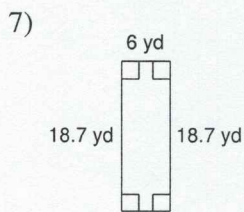
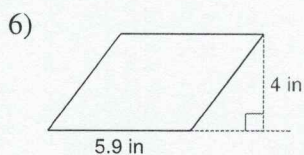
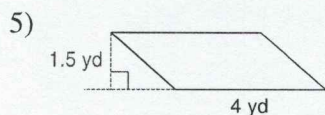
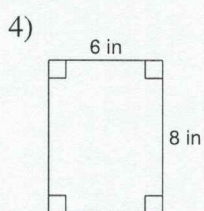
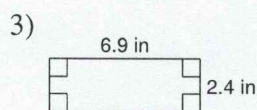
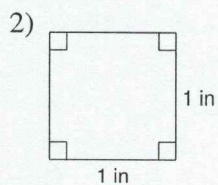
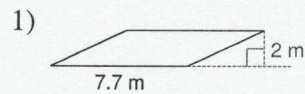


12) $x + y = 4$

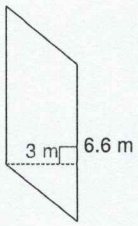


Area of Squares, Rectangles, and Parallelograms

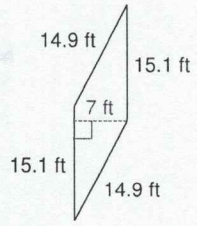
Find the area of each.



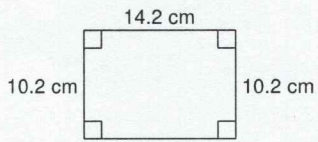
9)



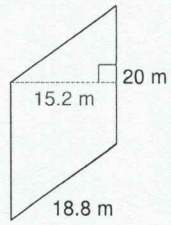
10)



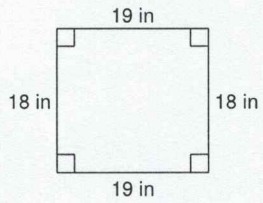
11)



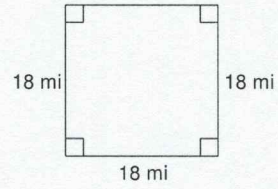
12)



13)

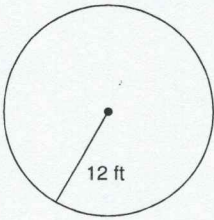


14)

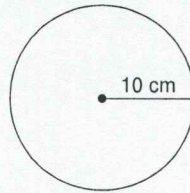


Find the area of each. Round to the nearest tenth.

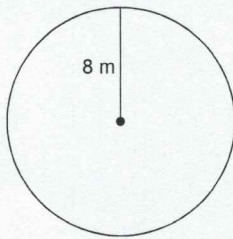
9)



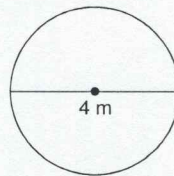
10)



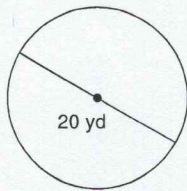
11)



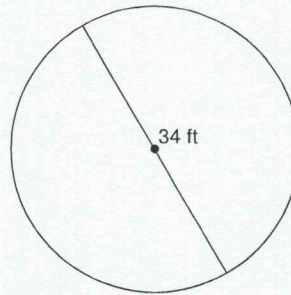
12)



13)



14)



15) radius = 8 ft

16) radius = 5 cm

Find the diameter of each circle.

17) area = 4π in²

18) area = 49π yd²

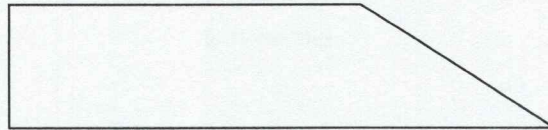
19) circumference = 162π yd

20) circumference = 30π yd

Composite Figures

Name _____ Date _____

1. Divide the shape below into two different geometric figures. Draw and name each figure.



Draw figure 1

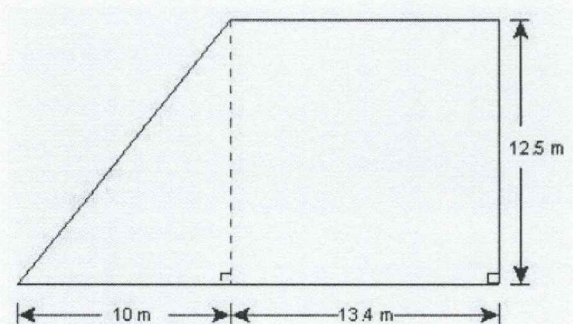
Draw figure 2

Name _____

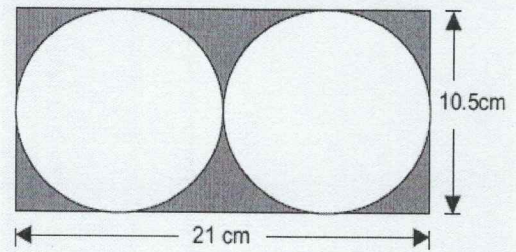
Name _____

2. How does separating an irregular, composite figure into various geometric figures help you calculate the perimeter and area of the irregular figure?
3. Draw a new shape that is composed of three different geometric figures. Label each figure you use.

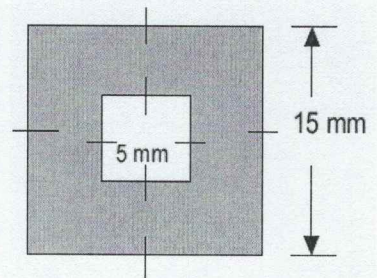
4. Calculate the perimeter and area of the geometric figures shown in the composite figure at right. Round to the nearest tenth. Show all work.



5. Calculate the perimeter and area of the shaded region in the drawing of two circles at right. Round to the nearest tenth. Show all work.



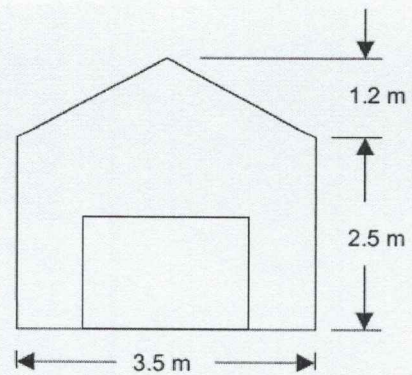
6. Find the area of the shaded region in the drawing of squares at right. Round to the nearest tenth. Show all work.



PROBLEM 1

The front of a garage needs to be painted. The total area except for the door will be painted. The door is 1.5 m high and 2 m wide.

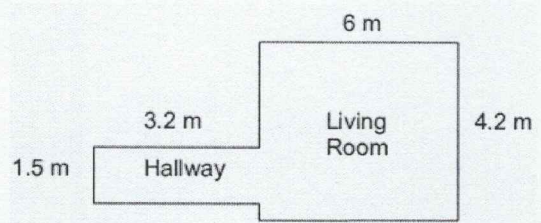
- A. How many square meters of paint will be needed?



- B. A can of paint covers 2.5 m^2 . How many cans of paint will be needed?
- C. A can of paint costs \$24.50. How much will it cost to paint the front of the garage?

PROBLEM 2

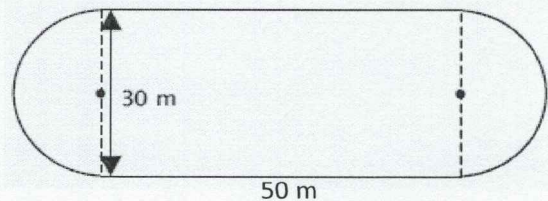
Joe needs to replace the carpet in his living room and hallway with laminate flooring. A floor plan is shown below.



- A. What is total area of floor that needs to be recovered?
- B. Each box of laminate flooring contains 2.15 m^2 of flooring material. How many boxes should Joe buy?
- C. One box costs \$42.60. How much will the flooring cost?
- D. If Joe gets a coupon for 20% off, how much would the flooring cost?

PROBLEM 3

The school's athletic director wants to seed the field and replace the fence. The field is shown at right.



- A. How many meters of fencing will he need to purchase?
- B. How many square meters will need to be seeded with grass seed?
- C. If seeding costs \$1.45 per square meter and fencing costs \$23.50 per meter, how much will it cost to seed and replace the fence for the field?