PAP Geometry Summer Packet

Hallsville High School

The goal of the summer math packet is to ensure that students are prepared for PAP Geometry. The skills learned in Jr. High and Algebra I are an integral part of success at the high school level. This packet covers many of the important prerequisite concepts that students entering PAP should have mastered.

All students entering PAP Geometry must complete this math packet over the summer. You will receive two grades for this material, one for completing the packet and another for a test covering the concepts in the assignment. The packet is due the first day of class and will not be accepted late. Packets will be graded and returned the first week of school and a test wil be given the following week.

Additional copies of this packet will be available at the high school or through www.hisd.com .

Good luck and have a great summer!

If you have any questions, feel free to email: Ronnelle Bridges at rbridges@hisd.com

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PAP Geometry Summer Packet

Solve each equation for "x". Show work and circle your answers.

1. $9x - 7 = -7$

2. $-6 + \frac{x}{4} = -5$

3. $2(x + 5) = 28$

4. $\frac{x + 9}{3} = 8$

5. $(2x + 3) + (x - 4) + (5x - 8) = 180$

6. $\frac{28}{x} = 6$

7. $\frac{10}{8} = \frac{x}{10}$

8. $\frac{7}{x + 5} = \frac{10}{21}$

9. $\frac{5}{x - 9} = \frac{8}{x + 5}$

10. $x + 2(180 - x) = 210$

Simplify each and circle your answer.

1. $\frac{2}{3}\cdot\frac{5}{8}$

2. $120\cdot\frac{x}{180}$

3. $\frac{3}{5}+\frac{4}{15}$

4. $\frac{2}{3}(12x+21)$

5. $(x+3)(x-10)$

6. $(2x+3)(5x+7)$

7. $(x-8)^2$

8. $\frac{6\cdot 6\sqrt{3}}{2}$

9. $\left(\sqrt{15}\right)^2$

10. $\left(2\sqrt{3}\right)\left(3\sqrt{2}\right)$

Write each in simplified radical form (no decimal).

9. $\sqrt{20}$

10. $\sqrt{48}$

11. $\sqrt{425}$

Solve each by factoring and circle your answers.

12. $x^2+2x-15=0$

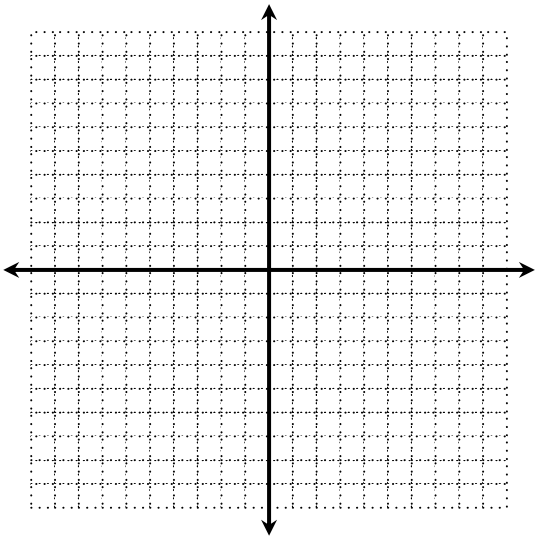
13. $x^2-49=0$

14. $x^2-18x+81=0$

Graph the following equations:

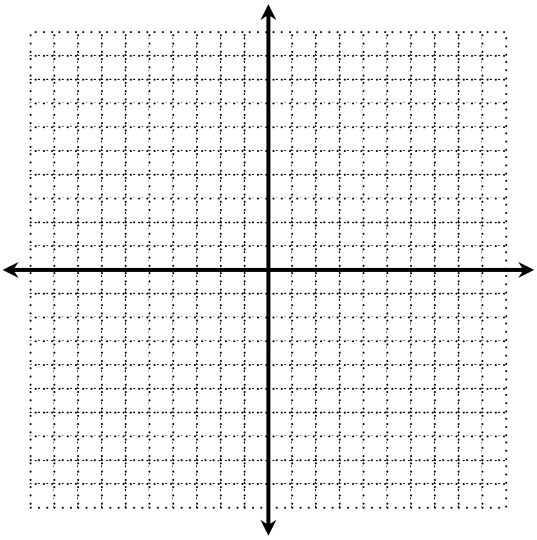
1. $y = -\frac{4}{3}x - 4$

2. $y - 2 = \frac{1}{3}(x - 6)$



3. $4x - 3y = 12$

4. $y = -2$



Write the equation of the line that satisfies each of the following conditions.

5. Has slope -2 and y-intercept of 4 _____

6. Passes through (2, -6) and has slope $\frac{1}{2}$ _____

7. Passes through (1, -4) and (5, -2) _____
(hint: find slope first)

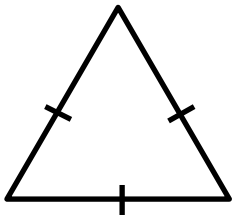
8. Is horizontal and passes through (3, 9) _____

Triangles and Lines

Classify each triangle by its sides (scalene, isosceles, equilateral) and by it angles (acute, right, obtuse).

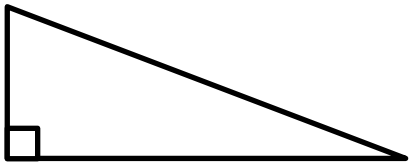
1. _____

_____



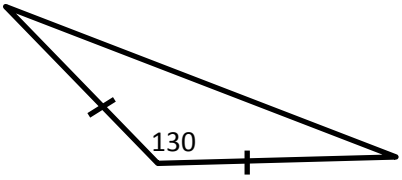
2. _____

_____



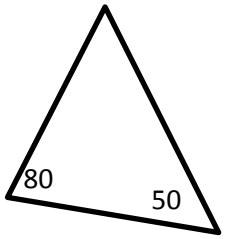
3. _____

_____



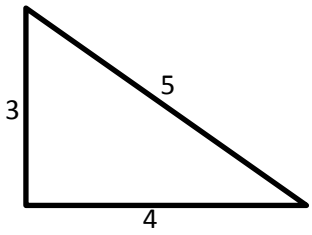
4. _____

_____



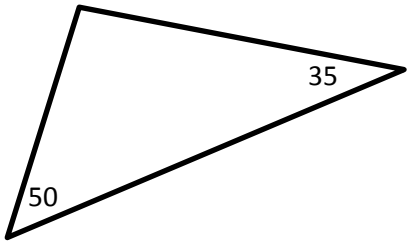
5. _____

_____



6. _____

_____



7. **An angle greater than 90° is a(n) _____ angle.**

8. **All the angles of a triangle have a sum of _____°.**

9. **A right angle has a measure of _____°.**

10. **Two figures with the same size and shape are called _____ figures.**

11. **An angle whose measure is less than 90° is a(n) _____angle.**

12. **If two lines lie in the same plane and do not intersect, they are _____ lines.**

13. If two lines intersect at 90°, then they are _____ lines.

Define each and draw a sketch.

Quadrilateral –

Parallelogram –

Rhombus –

Rectangle –

Square –

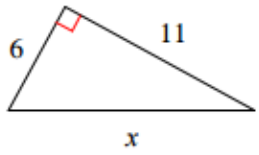
Trapezoid –

Kite –

Regular Polygon –

Find the missing side of each triangle. Leave your answers in simplest radical form.

1)



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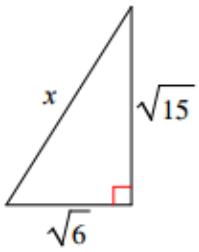

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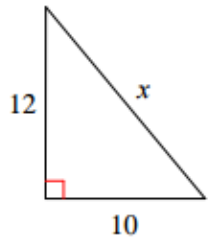

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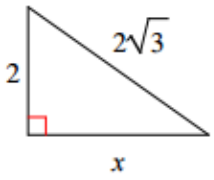
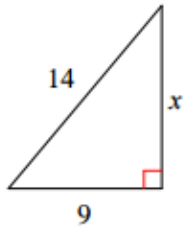
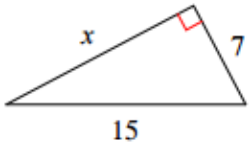


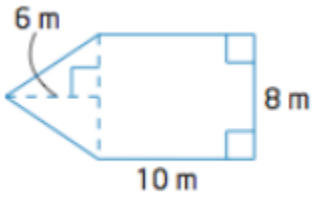
5)

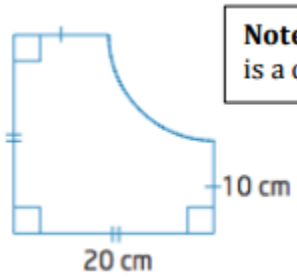


6)



Find each composite Area and





Perimeter/Circumference.

7)

8)

9)

10)