Thank you for your interest in Geometry this year! Please complete the application and email it to me at shabacivch@aimacademy.online. Once I have approved your applications, you may proceed with registration at Aim Academy.

Requires hours: 5-7 hours per week (this will depend on student's individual ability).

Student Name	
Gender	
Age	
Birthday	
Grade Next Year	
Student Email	
Mailing Address	
Parent Name(s)	_____ _____
Parent Email(s)	
Parent Phone(s)	

Please list the previous coursework in math, starting with Pre-Algebra. Complete as much information as you can.

Course Name	Year(s) Taken	Curriculum Used	Grades Earned
Pre-Algebra			
Algebra I			
Other			

Please complete the placement test without the use of books or calculators and give your answers below:

#	Answer
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Aim Academy Geometry Placement Test

____ 1. Which expression is equivalent to $x^2 - 4$?

a. $(x-2)^2$ b. $(x+2)^2$ c. $x(x-2)$ d. $(2+x)(x-2)$

____ 2. Expand $(2x+4)(-x^2-3)$.

a. $-x^2+2x+1$
b. $-2x^3-12$
c. $-2x^3-4x^2-6x-12$
d. $-2x^3+4x^2+6x-12$

____ 3. What is the equation of a line with slope –3 that passes through the point (–2, 0)?

a. $y=-3x-2$ b. $y=-3x+2$ c. $y=3x+6$ d. $y=-3x-6$

____ 4. Which do you calculate first when simplifying $5+2(10+2\bullet 3^2)$?

a. 3^2 b. $5+2$ c. $10+2$ d. $2\bullet 3$

____ 5. Simplify $\dfrac{\dfrac{8a^3b}{3c^2}}{\dfrac{a^2b^2}{6c}}$.

a. $\dfrac{8a^5b^3}{18c^3}$ b. $\dfrac{bc}{16a}$ c. $\dfrac{48a^3bc}{3a^2b^2c^2}$ d. $\dfrac{16a}{bc}$

____ 6. Which is *not* a related fact of the equation $x+2=-7$?

a. $x+7=-2$ b. $x=-7-2$ c. $2=-7-x$ d. $2-x=-7$

____ 7. Solve the equation $17=|1-x|-3$.

a. –19, 21 b. 19, –21 c. 21 d. 19

____ 8. Simplify $(-2x^2y)(3xy^3)^2$.

a. $-18x^4y^6$ b. $-18x^4y^7$ c. $-6x^4y^6$ d. $-18x^4y^5$

____ 9. Between what two consecutive integers is $\sqrt{151}$?

a. 11 and 12 b. 14 and 15 c. 12 and 13 d. 9 and 10

____ 10. Solve $-4x^2=-36$.

a. –3 b. 3 c. ±6 d. ±3

Solve the proportion.

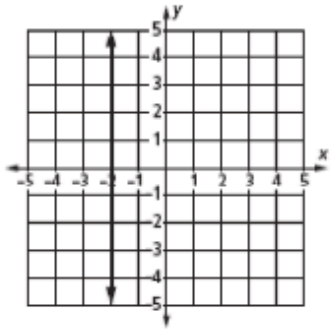
____ 11. $\frac{w+14}{4w+6} = \frac{3}{4}$

a. $\frac{8}{19}$ b. $\frac{15}{28}$ c. $\frac{19}{4}$ d. $\frac{2}{7}$

____ 12. Use the Quadratic Formula to solve the equation $x^2 + 9x + 1 = 0$.

a. $x = \frac{9 \pm \sqrt{85}}{2}$ b. $x = \frac{-9 \pm \sqrt{77}}{2}$ c. $x = \frac{-9 \pm \sqrt{85}}{2}$ d. $x = \frac{9 \pm \sqrt{77}}{2}$

____ 13. What is the equation of the line graphed below?



a. $y = -2$ b. $y = x - 2$ c. $y = -x - 2$ d. $x = -2$

____ 14. Solve the inequality $-17 < 3 - 5x$.

a. $4 < x$ b. $4 > x$ c. $-\frac{14}{5} < x$ d. $-\frac{14}{5} > x$

____ 15. Multiply $(x - 6)^2$

a. $x^2 - 36$ b. $2x - 12$ c. $x^2 - 6$ d. $x^2 - 12x + 36$

____ 16. Simplify $-2(4 - y) - (2 - 3y)$.

a. $5y - 10$ b. $-4y - 10$ c. $-y - 10$ d. $-y + 6$

____ 17. Which of the following is the solution to the equation $\frac{2}{7}x - \frac{3}{14} = \frac{1}{14}$?

a. -1 b. $-\frac{1}{2}$ c. 1 d. 2

____ 18. What is the slope of a line that passes through the points (–2, 5) and (7, –3)?

a. $-\frac{9}{8}$ b. $-\frac{8}{9}$ c. $\frac{8}{9}$ d. $\frac{9}{8}$

____ 19. Over the course of 3 hours, the temperature dropped from 70° to 55°. What was the rate of temperature change in degrees per hour?

a. –15°
b. –5°
c. 5°
d. 15°

____ 20. The area of a trapezoid is given by the formula $A = \frac{1}{2}h(B+b)$. Which correctly shows the equation solved for B?

a. $\frac{1}{2}Ah - b = B$
b. $B = \frac{2A}{h} - b$
c. $B = 2Ah - b$
d. $B = \frac{2A}{h} + b$