

Name: _____ Mr. Ayer
_____/50 (2 Points Each)

H Geometry Summer Assignment

Multiply the Following:

1. $(2x - 4)(6x + 2)$

2. $(3x - 2)(2x + 2)(5x - 4)$

3. $4(2x - 3)(x^2)(-x)$

Solve Each:

4. $x^2 = 16$

5. $|x - 3| = 8$

6. $\frac{x}{2} = \frac{13}{5}$

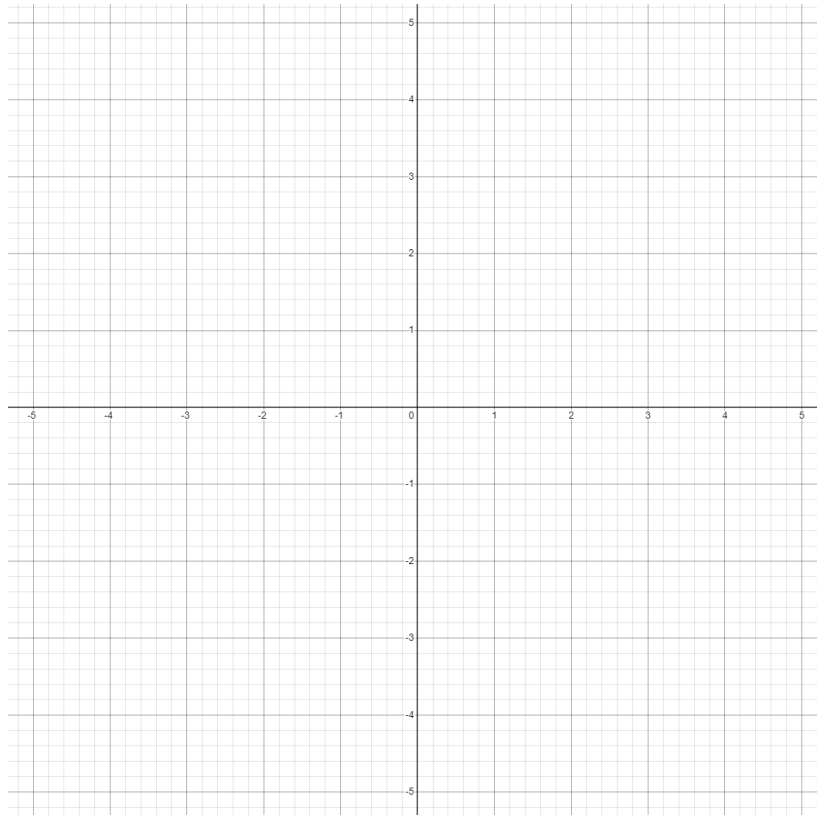
7. $\frac{4}{x} = \frac{9}{4}$

Name: _____ Mr. Ayer
_____/50 (2 Points Each)

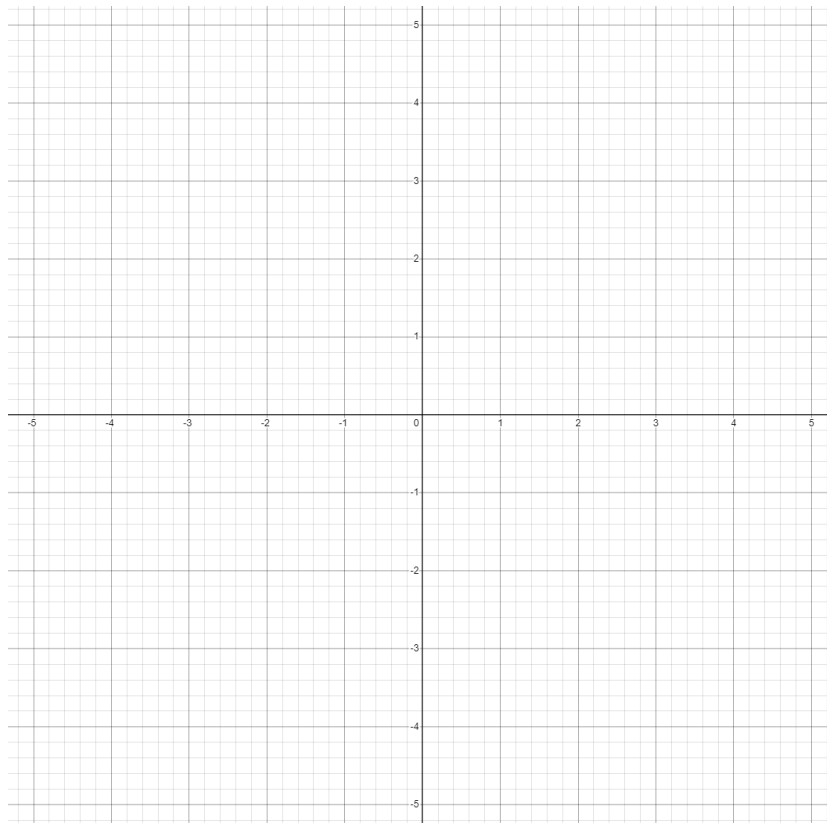
H Geometry Summer Assignment

Graph the Following:

8. $y = \frac{1}{2}x + 1$



9. $y = 2x - 3$



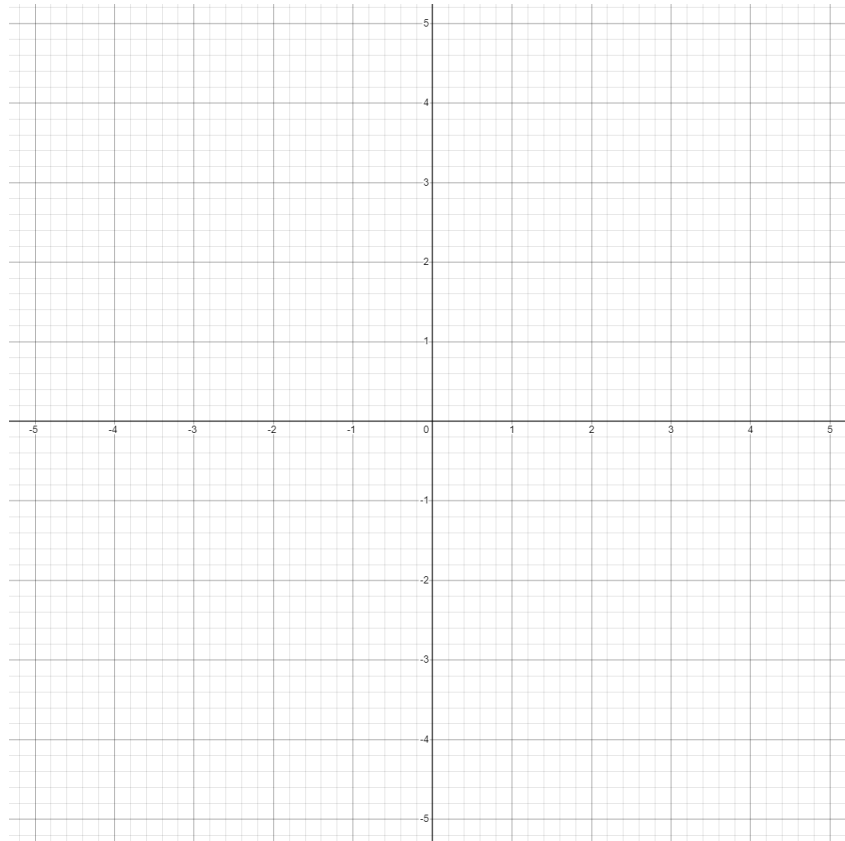
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Mr. Ayer

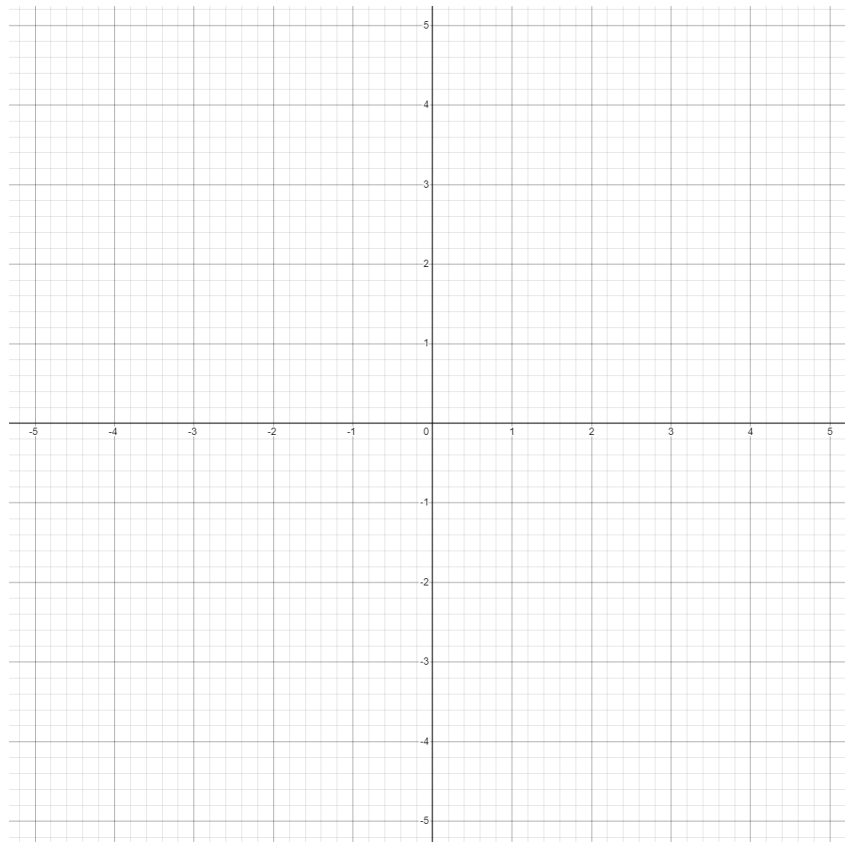
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_____/50 (2 Points Each)

10. $y = 4$



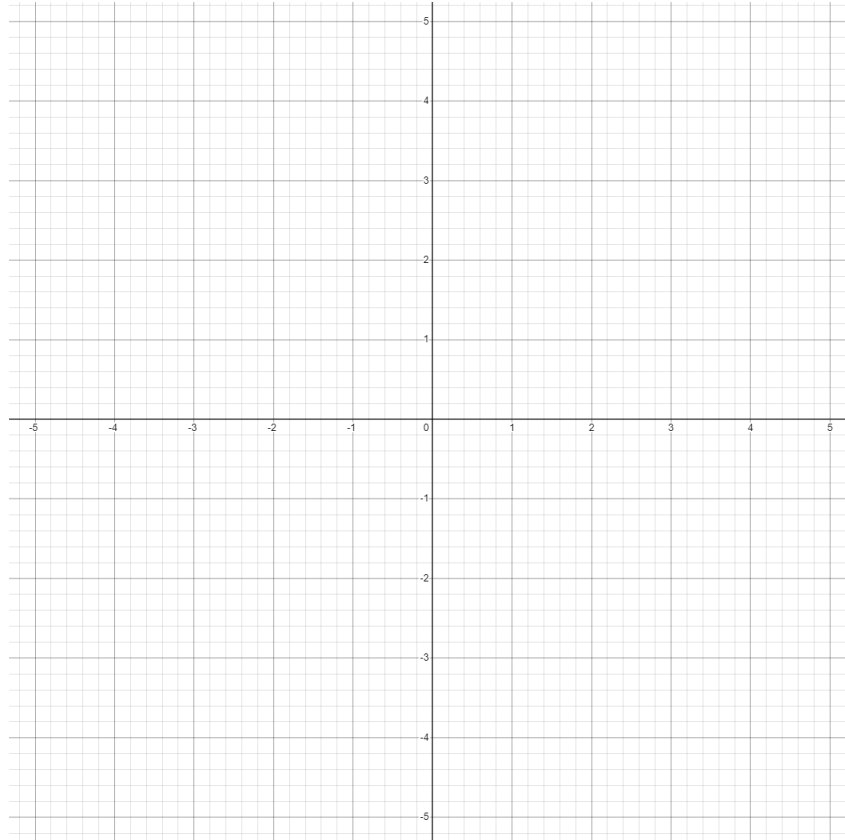
11. $x = -4$



Name: _____ Mr. Ayer
_____/50 (2 Points Each)

H Geometry Summer Assignment

12. $y = x^2 - 3$



Factor the Following:

13. $x^2 + x - 2$

14. $6x^2 - 20x + 6$

15. $2x^2 - 7x + 3$

Name: _____ Mr. Ayer
_____/50 (2 Points Each)

H Geometry Summer Assignment

16. $x^2 - 4$

17. $x^4 + 2x^2 + 1$

Simplify the Following:

18. $12^{-1}3^22^2$

19. $\frac{x^2y^3z^2}{xy^4z}$

20. $\left(\frac{10x^{-2}y^3}{z}\right)^{-1}$

21. $16^{\frac{1}{2}}$

22. 4^5

Name: _____ Mr. Ayer
_____/50 (2 Points Each)

H Geometry Summer Assignment

23. $\sqrt[2]{x^{16}}$

24. $(27x^3)^{\frac{1}{3}}$

25. $\frac{(m^2 a^6 (m^{-1}) t^7 h^{12})}{a^5 \left(\frac{1}{t-6}\right) h^{11}}$

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H Precalculus Summer Assignment

Multiply the Following:

1. $(2x - 4)(6x + 2)$

2. $(3x - 2)(2x + 2)(5x - 4)(x + 3)$

3. $4(2x - 3)(x^2 + 1)(-x)$

Solve Each (if not factorable, use quadratic formula $\left(x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}\right)$ and solve; may have imaginary solutions):

4. $0 = 2x^2 + 5x - 3$

5. $x^2 = -16$

6. $|x - 3| = 8$

7. $0 = 6x^2 - 17x + 12$

Name: _____ Mr. Ayer
_____/81 (3 Points Each)

H Precalculus Summer Assignment

8. $(x - 2)(x + 3)(2x - 1)(4x + 12) = 0$

9. $4x^2 - 1 = 0$

10. $\frac{x^2 - 2x + 1}{x - 1} = 0$

11. $x^2 + x - 6 = 0$

12. $x^4 - 1 = 0$

Name: _____ Mr. Ayer
_____/81 (3 Points Each)

H Precalculus Summer Assignment

Simplify the Following:

13. $\frac{x^3y^2z^5}{2x^2y^{-1}z}$

14. $\frac{x^{\frac{1}{2}}y^{-3}z^{\frac{1}{3}}}{x^2y^4z^{-\frac{5}{3}}}$

15. $4 \frac{x^2y^{-3}}{2x^2y^{-1}}$

Divide the Following by Long Division or Synthetic Division

16. $\frac{x^3-x^2-9x+9}{x-3}$

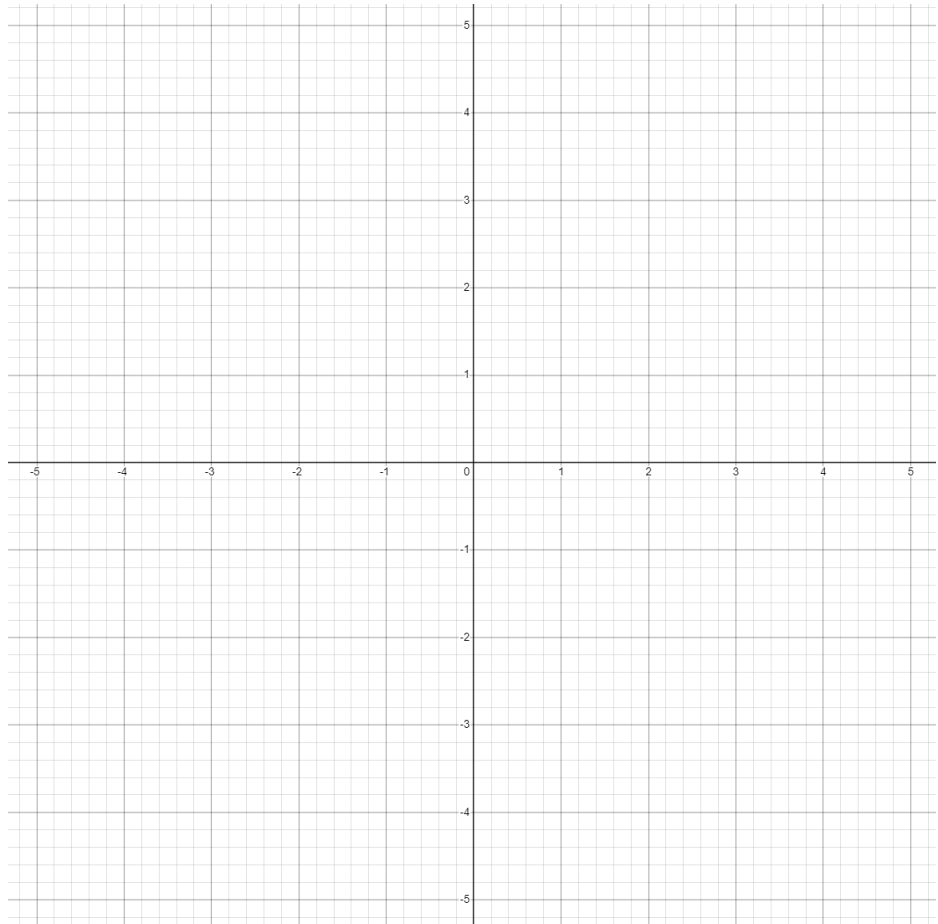
17. $\frac{10x^4-9x^3-33x^2+44x-12}{x+2}$

Name: _____ Mr. Ayer
_____/81 (3 Points Each)

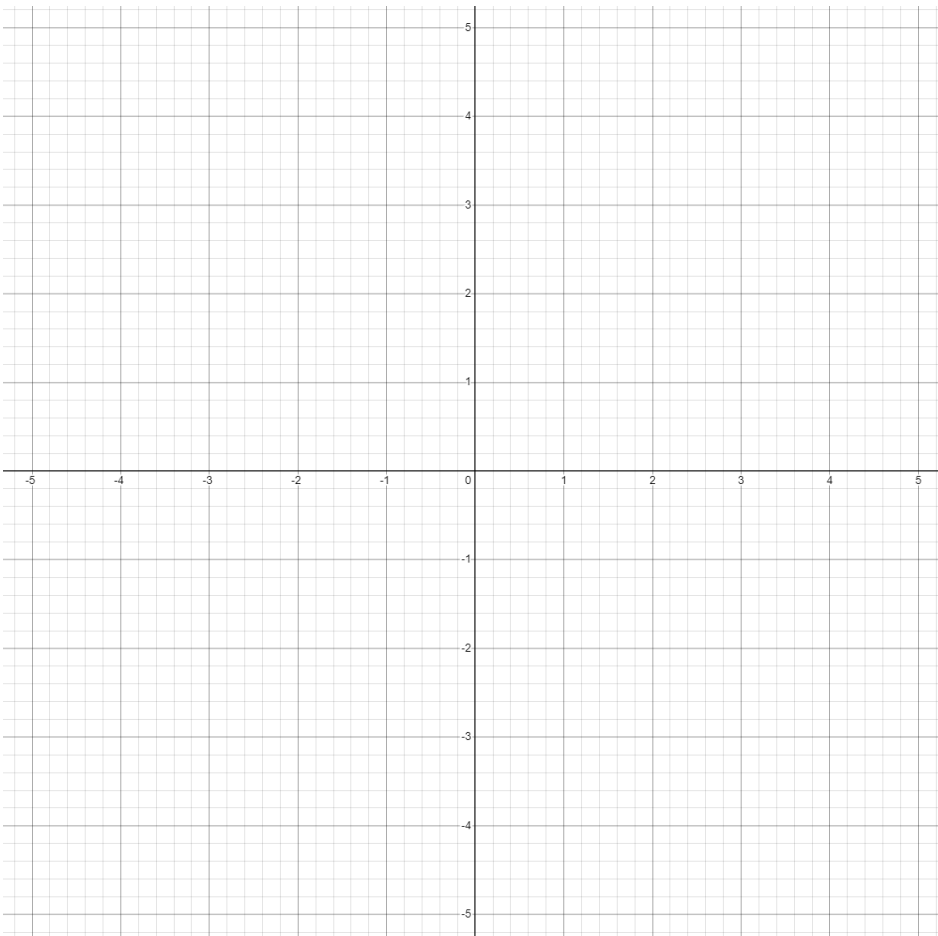
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Graph the Following:

18. $y = \frac{1}{2}x + 1$



19. $y = 2x^2 - 3$

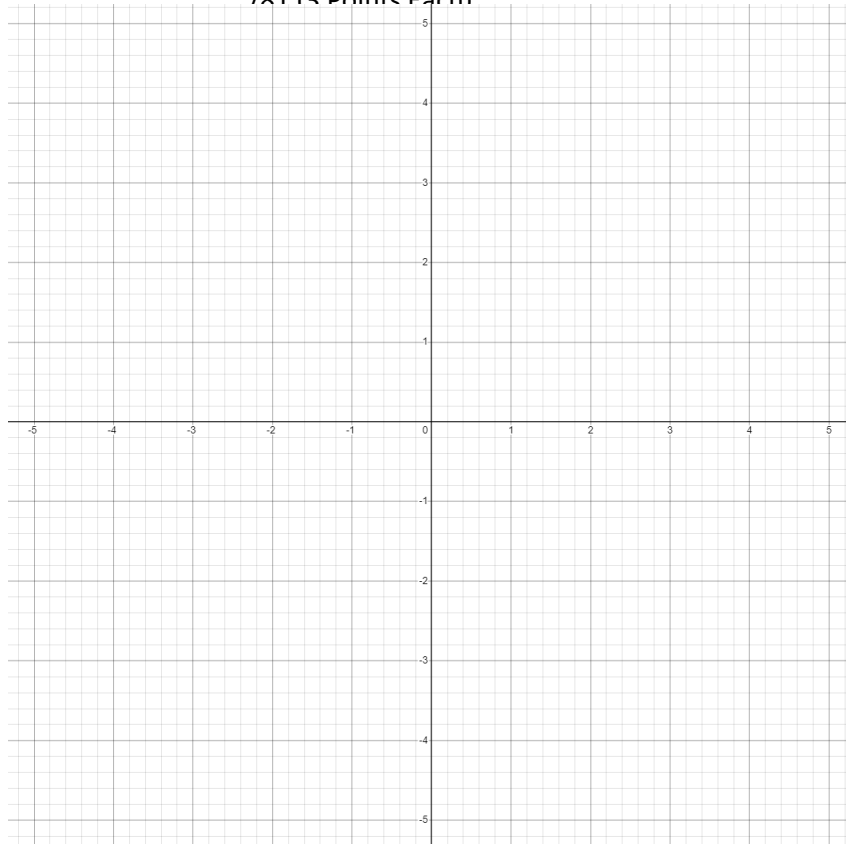


Name: _____

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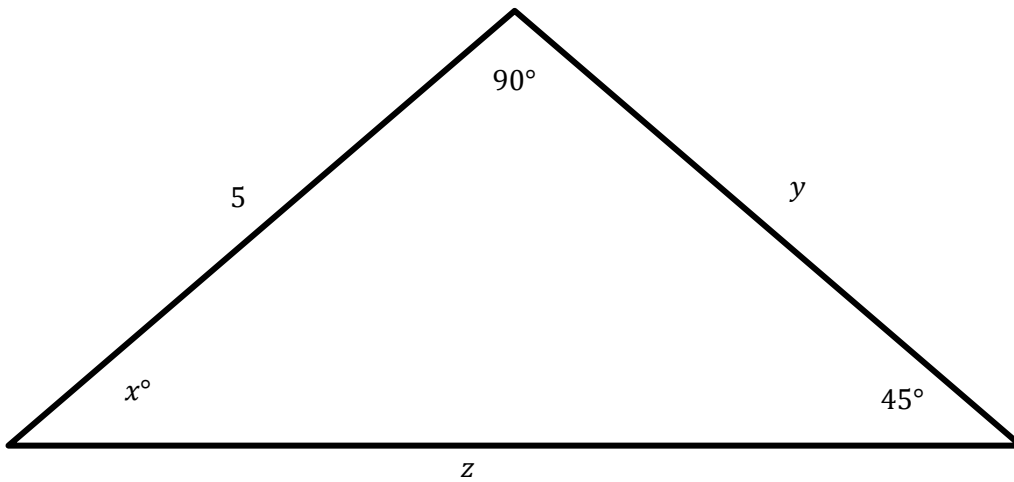
H Precalculus Summer Assignment

20. $y = \frac{x^2 - 3x + 2}{x^2 + x - 2}$

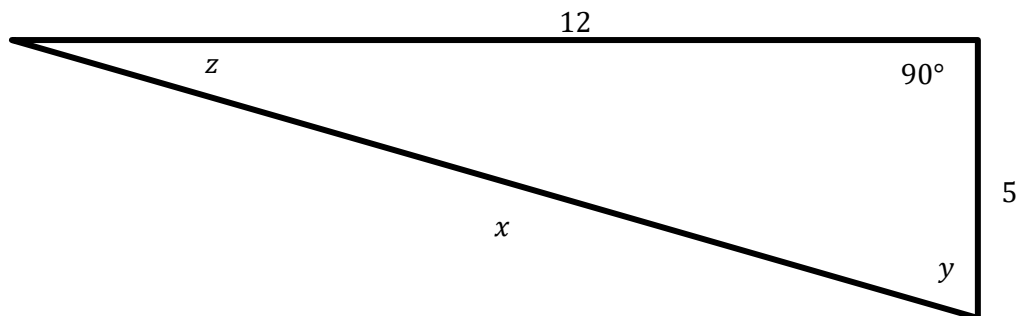


Find Each Variable in the Following using Trig, Inverse Trig, Pythagorean Thrm or Special Right Triangles

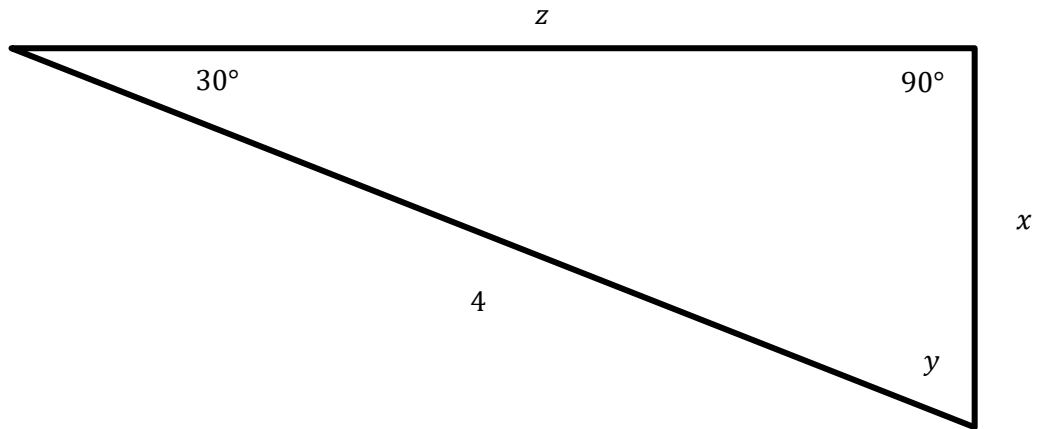
21.



22.



23.



Solve for x (leave in terms of logarithms unless you can simplify)

24. $e^{2x} = 3$

25. $2^{x+4} = 128$

Simplify

26. $\log_5(125)$

27. $\ln(e^{100})$