

SM3 HW #8-2 (Quadratic Formula)

Period _____

a) Solve each equation with the quadratic formula.**b) Select the correct answer.****c) Upload a picture of your work into CANVAS (in the submit HW #8-2 as a file upload)**

1) $7x^2 - 7x + 6 = 0$

2) $5x^2 + 7x - 4 = 0$

3) $2n^2 - 5n - 33 = 0$

4) $2b^2 = 6b + 23$

5) $3n^2 = 6n - 8$

6) $2m^2 = 14 + 3m$

a) Calculate the value of the discriminant of each quadratic equation then state the number and type of solutions.**b) Upload a picture of your work into CANVAS.**

7) $7m^2 - 7m + 3 = 0$

8) $7n^2 - 2n - 5 = 0$

9) $8b^2 + 8b - 2 = -4$

10) $2r^2 + 3r - 2 = -6$

a) Factor the quadratic equations using the box method.**b) Pick the correct zeros for the equation from the options given.****c) Upload a picture of your work into CANVAS.**

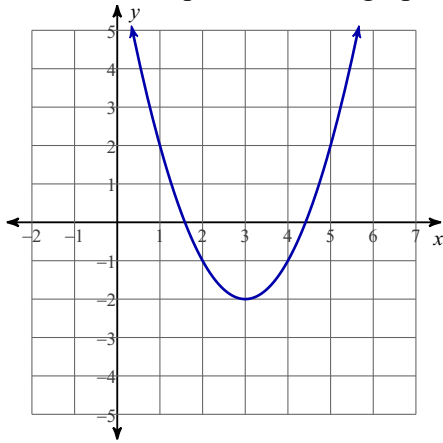
11) $3x^2 + 5x + 2 = 0$

12) $5v^2 - 8v + 3 = 0$

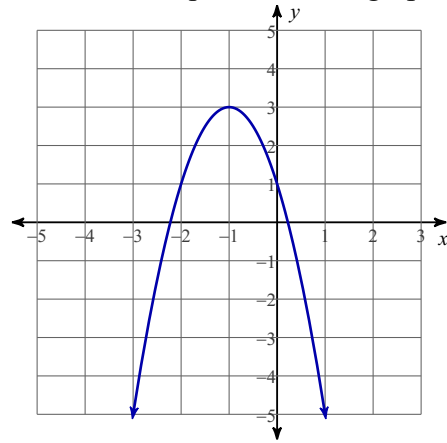
13) $9n^2 + 18n - 7 = 0$

14) $7k^2 - 41k - 6 = 0$

15) What is the equation of the graph?



16) What is the equation of the graph?



- Use m-substitution to convert the equation into a second degree polynomial
- Find the zeroes by factoring.
- Back substitute (reverse the m-substitution)
- choose the correct zeroes from the list given
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17) $f(x) = 3x^4 - 16x^2 + 21$

18) $f(x) = 3x^4 + 17x^2 - 6$

State the possible rational zeros for each function.

19) $f(x) = 3x^3 - 2x^2 - 14x + 4$

20) $f(x) = 3x^3 - x^2 - 3x + 1$

For Problem #21:

- If $\sqrt{6}$ is a zero, find the remaining zeros.
- Pick the correct zeroes from the lists given
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21) $f(x) = 5x^4 - 24x^2 - 36$

For Problem #22:

- If $\sqrt{3}$ is a zero, find the remaining zeros.
- Pick the correct zeroes from the lists given
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22) $f(x) = 10x^5 - 6x^4 - 55x^3 + 33x^2 + 75x - 45$