Name: ----------

Date: ---------- Score: ----------

MATH MONKS

Writing Polynomial Equations

Write the standard form of the polynomial function $f(x)$ of least degree with integral coefficients that has the given zeros. Show your work.

1 0, √3, -√3

$f(x) =$ _____

2 1, 2, 5

$f(x) =$ _____

3 $\frac{4}{5}$, 2i

$f(x) =$ _____

4 -1, -i

$f(x) =$ _____

5 $-\frac{1}{2}$, 1, $\frac{3}{4}$

$f(x) =$ _____

6 8, 2 + i, 2 - i

$f(x) =$ _____

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MATH MONKS

Writing Polynomial Equations

Write the standard form of the polynomial function $f(x)$ of least degree with integral coefficients that has the given zeros. Show your work.

1 0, $\sqrt{3}$, $-\sqrt{3}$

$f(x) = x^3 - 3x$

2 1, 2, 5

$f(x) = x^3 - 8x^2 + 17x - 10$

3 $\frac{4}{5}$, 2i

$f(x) = 5x^3 - 4x^2 + 20x - 16$

4 -1, -i

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

5 $-\frac{1}{2}$, 1, $\frac{3}{4}$

$f(x) = 8x^3 - 10x^2 - x + 3$

6 8, 2 + i, 2 - i

$f(x) = x^3 - 12x^2 + 37x - 40$