

## Geometry Placement Test

If your child understands the concepts in this test, they are ready for Geometry.

I. Express in simplest terms. (6 points each)

1)  $(-\frac{1}{2})^2 + (ab)^0 - 3^2$

2)  $\sqrt{16X^2}$

3)  $(3X)^Y (3X)$

4)  $|6 - 8|$

5)  $\sqrt{X^2 + 4X + 4}$

6)  $(81 \frac{1}{2})^{-3}$

7)  $3X^3X^{-1} + \frac{20X^2}{X-4} + \frac{5X}{X-1}$

II. Factor. (10 points each)

1)  $3X^2 - 27$

2)  $5X^2 - 9X - 2$

3)  $X^3 + 5X^2 + 6X$

4)  $14Y^2 - 7Y - 42$

III. Solve for X. (8 points)

1)  $1,000,000 = (10^3)^X$

IV. Solve for X. Factor first if necessary. (10 points each)

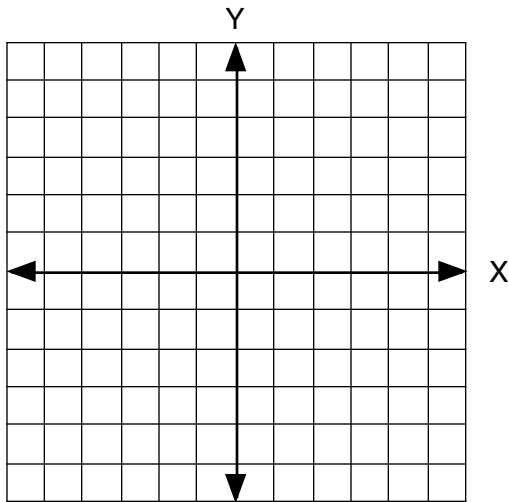
1)  $3X^2 - 6X = 0$

2)  $\frac{1}{5}X - \frac{1}{2} = \frac{2}{3}$

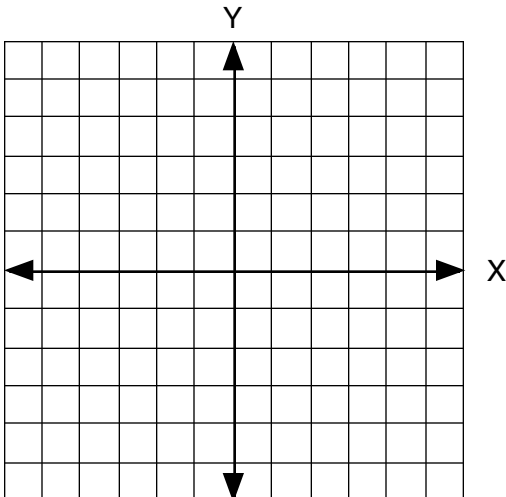
3)  $\frac{2}{X} + \frac{14-X}{4} = 4$  (X  $\neq$  0)

V. Graph. (10 points each)

1)  $Y = 2X^2$



2)  $4X^2 + Y^2 = 16$



3)  $Y = 3X + 1$

