

FINAL EXAM (150 points possible)

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

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

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

3. $(2^2)^3(2^2)$

4. $|6 - 8|$

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

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

7. $\frac{3X^2}{X^{-4}} + \frac{5X}{X^{-1}} =$

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. $10^6 = (10^3)^X$

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

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

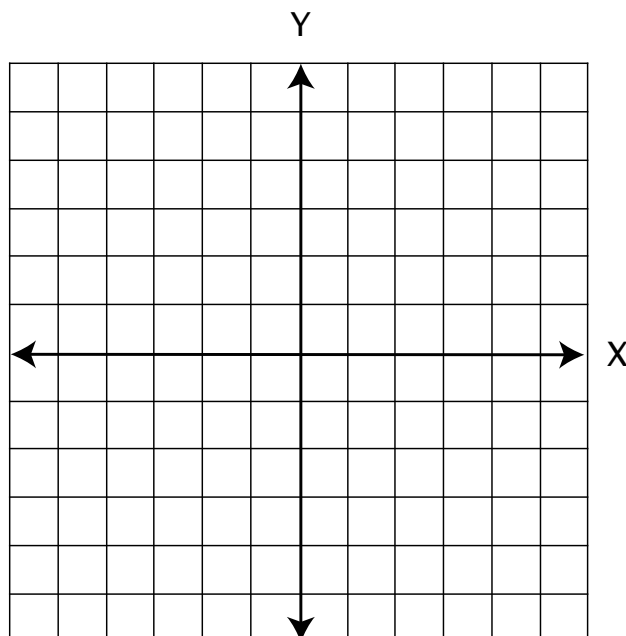
2. $\frac{1}{6}X - \frac{1}{2} = \frac{2}{3}$

3. $X + .25X = .4$

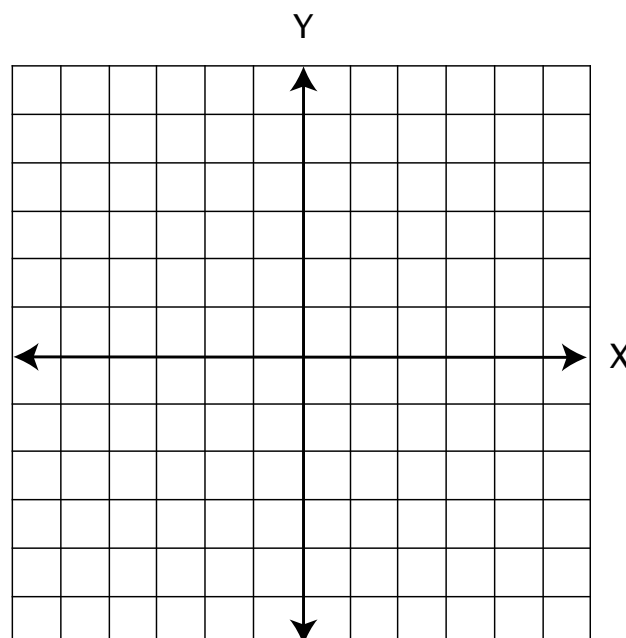
V. Graph. (10 points each)

1. $Y = 2X^2$

X	Y
0	
1	
-1	
2	
-2	



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



3. $Y = 3X + 1$

