One-Day Review

Factoring

$2x^4 - 2x^2 - 24$

$8x^2 + 10x - 3$

$-20x^2 + 5$

$2x^2 + 5x - 2x - 5$

Solving Equations

$x^2 - 5x = 0$

$(x-5)^2 - 50 = 0$

$2x(x+1) = 7x - 2$

$x^2 - 4x = 8$

Difference of Cubes

Sum of Cubes

$x^3y^6 - 64$

$27x^3 + 1$

Rationalizing Expressions

$\dfrac{1+\sqrt{7}}{2-\sqrt{7}}$

$\sqrt{x+2}-\sqrt{x+1}$

Equations of Lines

Find an equation (<u>in general form</u>) of the line with the following characteristics:

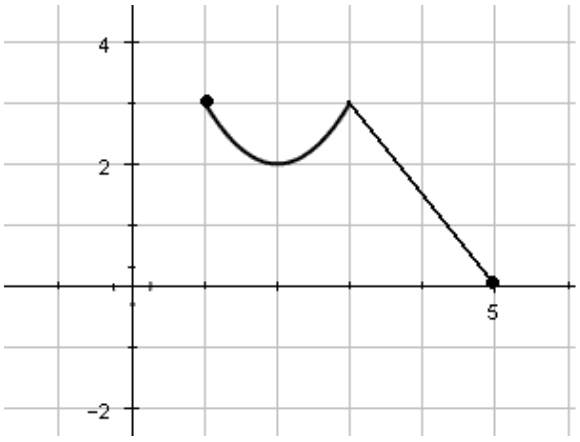
a) perpendicular to $y=\frac{1}{3}x+4$, passing through the point $(4,-2)$

b) passing through $(-1,3)$, x-intercept of 6

Functions

State the domain (in two ways).

State the range (in two ways).



Evaluate *f* at the following values of *x*:

a) $f(2)$ b) $f(3)$ c) $f(5)$

If $f(x)=2x^2-x+2$, find:

a) $f(-3)$ b) $f(x+2)$