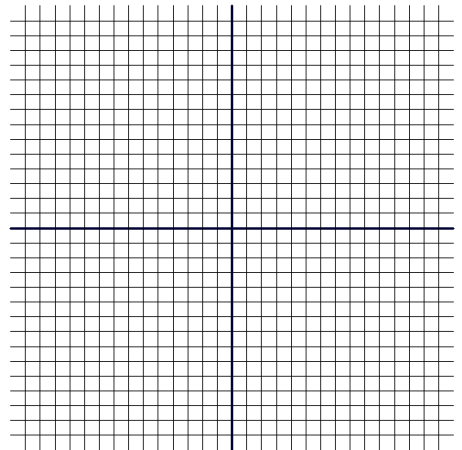


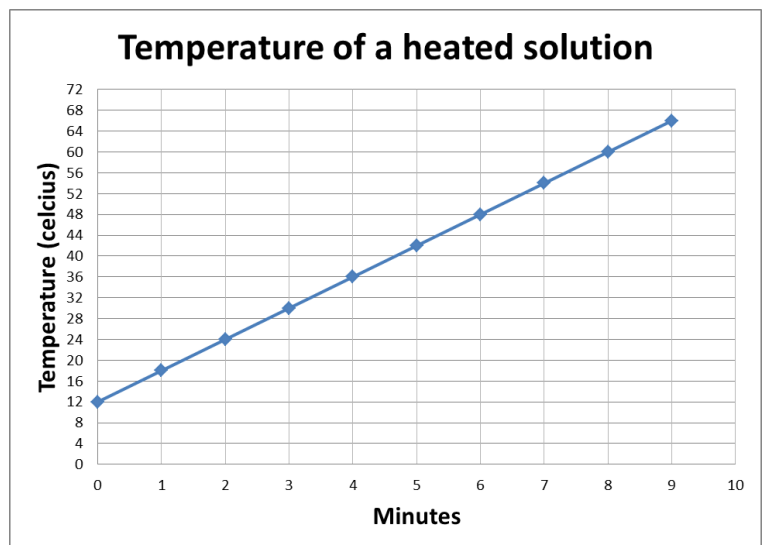
Sample Math 60 Final Exam Questions

NO CALCULATOR SECTION

- Simplify: $7 - 5[3x - (6x - 4)]$
- Solve: $2(3m - 4) = 5m - 3(7 - 5m)$
- Solve: $\frac{2a}{5} = \frac{5a}{6} - 4$
- Find and graph the equation of the line through the points: $(-4,1)$ & $(8,-8)$
- Calculate the x-intercept of the line in question 4.
- Find $f\left(-\frac{3}{4}\right)$ if $f(x) = 6 - 10x$
- Solve the following systems of equations. $y - 4x = 9$
 $x = 1 - 3y$
- Consider the graph showing the temperature of a solution as it is heated.



- Find the slope.
- What meaning does the slope have?
- What meaning does the y-intercept have?
- Find the equation of the line.
- When will the temperature reach 102° ?



CALCULATOR SECTION

- The moment of inertia of a beam is $I = \frac{1}{12}bd^3$.
 - Find the moment of inertia if $b=3.5$ inches and $d=14$ inches.
 - Solve the formula for b .
- Convert 55 miles per hour to a speed in feet per second.

Solutions:

- $15x-13$
- $\frac{13}{14}$
- $9\frac{3}{13}$
- $y = -\frac{3}{4}x - 2$
- Graph
- $\left(-\frac{8}{3}, 0\right)$
- $13\frac{1}{2}$
- $(-2,1)$
- a. 6 b. the slope shows that the temperature is rising 6° per minute c. the y-intercept is the initial temperature of the solution d. $y = 6x + 12$ e. 15 minutes
- a. 800.3 in^4 b. $b = \frac{12I}{d^3}$ 10. 80.7 ft/sec

