Honors Physics **Quiz 1: Math Skills** **Mr. Kelley**

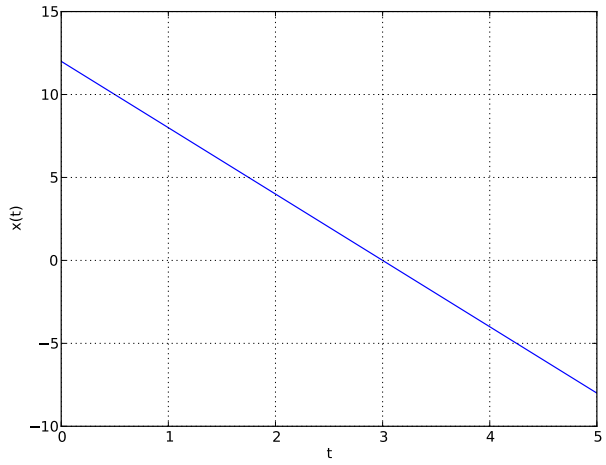
Solve the following equations for x, and simplify:

1. $\frac{9}{8x} = 3z$
2. $6z - 2zx = 12zy$
3. $F = k\frac{ab}{x^2}$
4. $8tx + 8t = 12x$

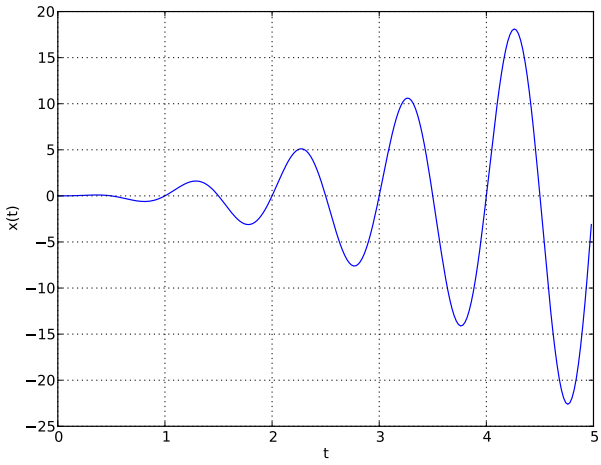
Write x as a function of t, and simplify:

5. $6t + 3x = 9$
6. $t^2 - 2xt = t$
7. $8xt = 6t^2 + 2x - 10t$
8. $\frac{x}{t} - v_\circ = \frac{1}{2}at$

9. **What is the value of $x(3)$ in the following figures?**

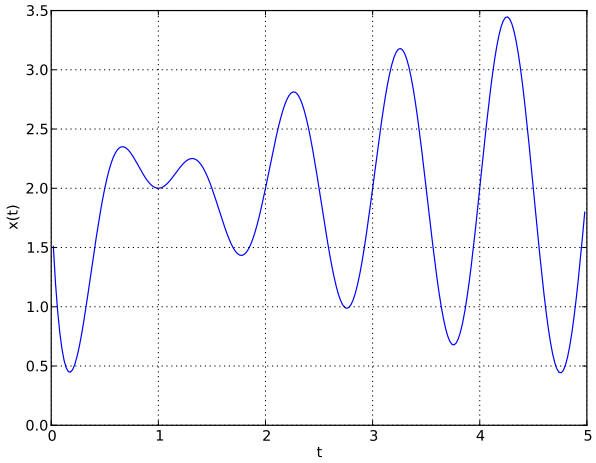


(a)

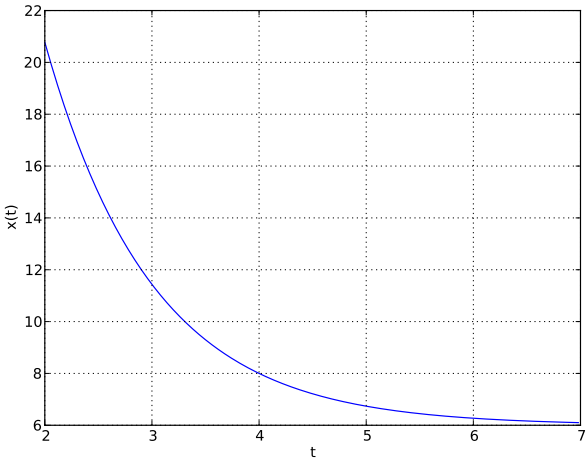


(b)

10. **What is the value of $x(4)$ in the following figures?**



(a)

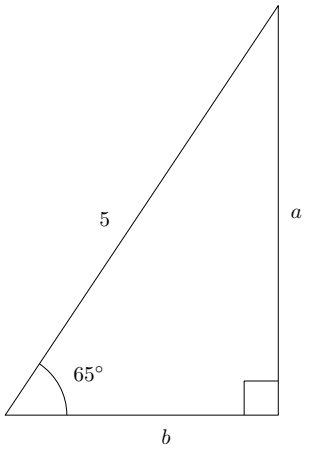


(b)

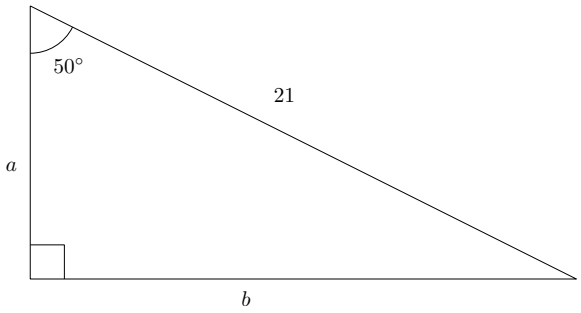
11. What is $x(\frac{1}{2})$ in problem 7?

12. What is $x(2)$ in problem 10?

13. **Find a and b in the following figures.**



(a)



(b)

14. Convert 1.08×10^9 km/h to units of m/s.