HW #5 Final Answers

1. Answer

The beam of light is moving $\frac{80\pi}{3}$ km per minute at that moment.

2. $\frac{x^2}{2} - 3x + C$

3. $\frac{x^{10}}{2} - \frac{3x^7}{7} + 3x^4 + C$

4. $7x + \frac{x^3}{4} - \frac{x^4}{5} + C$

5. $5x^{7/5} + 40x^{1/5} + \sqrt{2}\,x + C$

6. $\frac{-5}{4x^8} - \frac{3}{x^3} + C$

7. $\frac{7}{5}x^{\frac{5}{7}} + \sqrt{x} + C$

8. $\frac{x^3}{3} + \frac{5}{2x^2} + \frac{2}{5}x^{\frac{5}{3}} + C$

9. $\frac{-1}{x} + x + \frac{x^8}{8} + C$

10. $-2\cos x - 7\tan x - 3\sec x + C$

11. $\frac{2x^3}{3} + \frac{x^2}{2} - x + C$

12. $x + 2x^{3/2} + 5$

13. $-\cos x - 6$

14. $-\sin x - \cos x + 5x + 4$

15. $x^5 - x^4 + x^3 - 9x - 2$