

MCS21 Homework 27

In 1 – 9, find $\frac{dy}{dx}$.

1. $y = \sin x$

2. $y = \cos x$

3. $y = \tan x$

4. $y = (\tan x)(\sin x)$

5. $y = x^3 \cos x$

6. $y = 2x^5 - x \sin x$

7. $y = \sqrt{x}(\tan x)$

8. $y = \frac{5 + 3 \sin x}{x^4 - 3}$

9. $y = \frac{\cos x}{\sin x}$

10. At what value(s) of x in the interval $0 \leq x < 2\pi$ does $y = \sin x$ have a horizontal tangent line?