Differentiation Exercises, Find dy/dx for the blow problems

1. $y = x^5 tanx$

2. $y = \frac{2-x}{3x-1}$

3. $y = \sqrt{3 - 2x}$

4. $y = \frac{2}{(5x+1)^3}$

5. $y = x^{\frac{2}{3}} - 4x^{0.5} - 2$

6. $y = 2\sqrt{x} - \frac{1}{2\sqrt{x}}$

7. $y = \sqrt{x^2 - 2x + 1}$

8. $y = \frac{x^2}{cosx}$

9. $ln(\frac{e^x}{e^x-1})$

10. $y = tan^{-1}\frac{x}{2}$

11. $y = ln(sec\,x + tanx)$

12. $y = \frac{e^x - e^{-x}}{e^x + e^{-x}}$

13. $y = ln(\sqrt{x^2 - 1})$

14. $y = \frac{1}{sinx}$

15. $y = \frac{1}{2sin2x}$

16. $y = e^{-x}cos2x$

17. $y = sec^2(x)$

18. $y = x^3 ln^3 x$

19. $y = \frac{1+x^2}{1-x^2}$

20. $y = sin^{-1}x - \sqrt{1 - x^2}$