Calculus H

Ch. 3 #5 Power Rule

Name _____

Find the derivative of the following functions.

1. $f(x)=5x^4$

2. $y=11x^8$

3. $v=0.007t^{-83}$

4. $v(x)=\dfrac{x^{-9}}{18}$

5. $f(x)=5x^4$

6. $f(x)=4.77^{23}$

7. $y=0.3x^2-8x+4$

8. $r=0.2x^2+6x-1$

9. $\dfrac{d}{dx}(13-x)$

10. $f(x)=4.5x^2-x$

11. $y=x^{2.3}+5x^{-2}-100x+4$

12. $\dfrac{d}{dx}\left(x^{\frac{2}{5}}-4x^2-3x^{-1}+14\right)$

13. $v=(3x-4)^2$

14. $u=(5x-7)^2$

15. $f(x)=(2x+5)^3$

16. $f(x)=(4x-1)^3$

17. $g(x)=\dfrac{2}{x^2}-x+4$

18. $\dfrac{d}{dx}\left(\dfrac{3}{x^3}+\sqrt[3]{x^2}-x+1\right)$