Power Functions

Determine if the following functions are **power functions**? If it is give the <u>constant of variation</u> and the <u>power</u>. Assume that g, k and π *are constants*

1. $f(x) = 9x^{5/3}$

2. $f(x) = 3(2^x)$

3. $d = \dfrac{1}{2}gt^2$

4. $f(x) = 21$

5. $V = \dfrac{4}{3}\pi r^3$

6. $I = \dfrac{5}{d^2}$

7. $f(x) = 3x^{-1/3}$

8. $f(x) = \dfrac{9}{x^{5/3}}$

9. $f(x) = x^x$

Determine if the following functions are **monomial functions**? If it is give the <u>leading coefficient</u> and the <u>degree</u>. Assume that g, k and π *are constants*

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Determine if the following functions are **power functions**? If it is give the constant of variation and the power.

1. $f(x) = x$

2. $f(x) = x^2$

3. $f(x) = x^3$

4. $f(x) = \sqrt{x}$

5. $f(x) = |x|$

6. $f(x) = \sin x$

7. $f(x) = \cos x$

8. $f(x) = e^x$

9. $f(x) = \ln x$

10. $f(x) = \dfrac{1}{1 + e^{-x}}$

11. $f(x) = \dfrac{1}{x}$

Determine if the following functions are **monomial functions**? If it is give the <u>leading coefficient</u> and the <u>degree</u>.

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