

Worksheet  
NAME

**Differentiate following formulas:**

1.  $b^3$
2.  $\pi (\tan (a^4) + \tan (\cos (e^3)))$
3.  $(\log (-\tan (\sin (6))) + i\pi) g(a) \log (\cos (f(a)))$
4.  $b^3$
5.  $f(b)e^5$
6.  $\tan (5) + \cos (5)$
7.  $\frac{6}{7} \tan (a^4)$
8.  $g(a)$
9.  $b^2$
10.  $f(b)$
11.  $g(a) + \cos \left( \sqrt{\sin (6)} \right)$

**Answers:**

1.  $3b^2$
2.  $4\pi a^3 (\tan^2 (a^4) + 1)$
3.  $-\frac{g(a) \frac{d}{da} f(a)}{\cos (f(a))} (\log (-\tan (\sin (6))) + i\pi) \sin (f(a)) + (\log (-\tan (\sin (6))) + i\pi) \log (\cos (f(a))) \frac{d}{da} g(a)$
4.  $3b^2$
5.  $e^5 \frac{d}{db} f(b)$
6. 0
7.  $\frac{24a^3}{7} (\tan^2 (a^4) + 1)$
8.  $\frac{d}{da} g(a)$
9.  $2b$
10.  $\frac{d}{db} f(b)$
11.  $\frac{d}{da} g(a)$