Worksheet
NAME

Differentiate following formulas:

1. $9 + 2\sin\left(\log\left(-\tan\left(9\right)\right) + i\pi\right) + \dfrac{\log\left(2\right)}{\log\left(\frac{\log\left(2\right)}{\log\left(f\left(a\right)\right)}\right)}$

2. $f(a) + \cos\left(a^4\right) + \tan\left(4\right) + 3$

3. $\log\left(a^4\right) + \sqrt{\tan\left(7\right)}$

4. $\sqrt[4]{\sin\left(6\right)}\sin\left(\tan\left(2\right)\right)\sin\left(\tan\left(5\right)\right)$

5. $f(a)$

6. a^4

7. $\dfrac{\pi f(a)e^6}{\log\left(3\right)}\log\left(2\right)$

8. $\pi\sqrt{b}$

9. $2\cos\left(b^2\right)$

10. $\dfrac{19}{10}g(b)$

11. $\pi b^3 + \pi$

Answers:

1. $\dfrac{\log\left(2\right)\frac{d}{da}f(a)}{f(a)\log^2\left(\frac{\log\left(2\right)}{\log\left(f\left(a\right)\right)}\right)\log\left(f\left(a\right)\right)}$

2. $-4a^3\sin\left(a^4\right) + \frac{d}{da}f(a)$

3. $\dfrac{4}{a}$

4. 0

5. $\frac{d}{da}f(a)$

6. $4a^3$

7. $\dfrac{\pi e^6 \frac{d}{da}f(a)}{\log\left(3\right)}\log\left(2\right)$

8. $\dfrac{\pi}{2\sqrt{b}}$

9. $-4b\sin\left(b^2\right)$

10. $\frac{19}{10}\frac{d}{db}g(b)$

11. $3\pi b^2$