$Q1$ 2
[] 導関数の定義式を書け
Sheet [] $f'(x) =$ :: 2 :: -1
Ans
[] $f'(x) = \lim_{z \to z}(\frac{f(z) - f(x)}{z - x})$
$Q2$ 2
[] x^pの微分公式を書け
Sheet [] $(x^p)' =$ :: 2
Ans
[] px^{p-1}
$Q3$ 6
微分せよ
[1] $y = x$
[2] $y = x^3$
[3] $y = x^6$
Sheet [1] $y' =$ :: 2 [2] $y' =$ :: 2 [3] $y' =$ :: 2
Ans
[1] $y' = 1$
[2] $y' = 3x^2$
[3] $y' = 6x^5$
$Q4$ 6
微分せよ
[1] $y = x^{\frac{1}{2}}$
[2] $y = x^{-1}$
[3] $y = \dfrac{1}{x^2}$
Sheet [1] $y' =$ :: 2 [2] $y' =$ :: 2 [3] $y' =$ :: 2
Ans
[1] $y' = \dfrac{1}{2}x^{-\frac{1}{2}}$
[2] $y' = -\dfrac{1}{x^2}$
[3] $y' = -\dfrac{2}{x^3}$
$Q5$ 4
微分せよ
[1] $y = x + \dfrac{1}{x}$
[2] $y = \sqrt{x} + \dfrac{1}{\sqrt{x}}$
Sheet [1] $y' =$ :: 2 [2] $y' =$ :: 2
Ans
[1] $y' = 1 - \dfrac{1}{x^2}$
[2] $y' = \dfrac{1}{2\sqrt{x}} - \dfrac{1}{2x\sqrt{x}}$

$Q6$ 4
$\sin x, \cos x$ の微分公式を書け
[1] $(\sin x)' =$
[2] $(\cos x)' =$
Sheet [1] $(\sin x)' =$ :: 2 [2] $(\cos x)' =$ :: 2
Ans
[1] $\cos x$
[2] $-\sin x$
$Q7$ 4
$\cos^2 x$ の意味は次のどれか
[] 1 $\cos x^2$　2 $(\cos x)^2$　3 $(cos)^2 x$
Sheet [] 番号 = :: 4
Ans
[] 2
$Q8$ 4
$\tan x$ の微分公式を書け
[] $(\tan x)' =$
Sheet [] $(\tan x)' =$ :: 4 :: -1
Ans
[] $\dfrac{1}{\cos^2 x}$

$Q9$ 4
積の微分公式を書け
[] $(fg)' =$
Sheet [] $=$ :: 4 :: -1
Ans
[] $(fg)' = f'g + fg'$
$Q10$ 4
商の微分公式を書け
[] $\left(\dfrac{f}{g} \right)' =$
Sheet [] $=$ :: 4 :: -1
Ans
[] $= \dfrac{f'g - fg'}{g^2}$
$Q11$ 6
次の関数を微分せよ
[1] $y = x^2 \ \sin x$
[2] $y = \sin^2 x$
[3] $y = \dfrac{\cos x}{\sin x}$
Sheet [1] $=$ :: 2 :: -1 [2] $=$ :: 2 :: -1 [3] $=$ :: 2 :: -1
Ans
[1] $2x \sin x + x^2 \cos x$
[2] $2 \sin x \cos x$
[3] $-\dfrac{1}{\sin^2 x}$
$Q12$ 4
次の関数を微分せよ
[1] $y = (-3x + 4)^5$
[2] $y = \sin(2x + \dfrac{\pi}{4})$
Sheet [1] $=$ :: 2 [2] $=$ :: 2 :: -1
Ans
[1] $-15(-3x + 4)^4$
[2] $2 \cos(2x + \dfrac{\pi}{4})$

$Q13$
$y = a^x$の $(0, 1)$ における接線の傾きがちょうど 1 となるとき.
[] a を求めよ.
Sheet [] $a =$ :: 4
Ans
[] $a = 2.7182818284$

$Q14$
微分せよ
[1] $y = e^{5x}$
[2] $y = e^{-2x}$
[3] $y = e^{3x+1}$
[4] $y = \dfrac{e^{x} + e^{-x}}{2}$
Sheet [1] $y' =:: 2$ [2] $y' =:: 2$ [3] $y' =:: 2$ [4] $y' =:: 2$
Ans
[1] $y' = 5e^{5x}$
[2] $y' = -2e^{-2x}$
[3] $y' = 3e^{3x+1}$
[4] $y' = \dfrac{e^{x} - e^{-x}}{2}$

$Q15$
微分せよ
[1] $y = \log(-x)$
[2] $y = \log 2x$
[3] $y = \log(x+5)$
Sheet [1] $y' = :: 2$ [2] $y' = :: 2$ [3] $y' = :: 2$
Ans
[1] $y' = \dfrac{1}{x}$
[2] $y' = \dfrac{1}{x}$
[3] $y' = \dfrac{1}{x+5}$