

1 f  $\begin{cases} f(x) = \frac{\sqrt{x^2 + 3} - 2}{x - 1} \dots\dots\dots x \neq 1 \\ f(1) = \frac{1}{2} \end{cases} : R \quad f \quad : \underline{1}$

$a \in R$   $\begin{cases} f(x) = \frac{x + 2 - \sqrt{x^2 + 4}}{x} \dots\dots\dots x \neq 0 \\ f(0) = a \end{cases} : R \quad f \quad : \underline{2}$   
 . 0 f a

2 f  $\begin{cases} f(x) = \frac{\tan(x^2 - 4)}{x - 2} \dots\dots\dots x \neq 2 \\ f(2) = 4 \end{cases} : f \quad : \underline{3}$

0 f  $\begin{cases} f(x) = x^2 - 3x + 2 \dots\dots\dots x < 0 \\ f(x) = \frac{x}{\sqrt{x+1} - 1} \dots\dots\dots x > 0 \\ f(0) = 2 \end{cases} : R \quad f \quad : \underline{4}$

$R \quad m \quad \begin{cases} f(x) = (m-1)x + 2 \dots\dots\dots x > 2 \\ f(x) = \frac{x^2 + 2x - 3}{x - 1} \dots\dots\dots x \leq 2 \end{cases} : f \quad : \underline{5}$

- .0 f .1
- .  $D_f$  f .2
- . 2 f m .3

1 f  $\begin{cases} f(x) = \frac{\sin(x^3 - 1)}{x - 1} \dots\dots\dots x \neq 1 \\ f(1) = 2 \end{cases} : f \quad : \underline{6}$

4 f  $\begin{cases} f(x) = \frac{1}{\sqrt{x} - 2} \dots\dots\dots x > 4 \\ f(x) = \sqrt{4 - x} \dots\dots\dots x < 4 \\ f(4) = 0 \end{cases} : R \quad f \quad : \underline{7}$

$\begin{cases} f(x) = \frac{2 + x \sin(1/x)}{|x| + 1} \dots\dots\dots x \neq 0 \\ f(0) = 2 \end{cases} : R \quad f \quad : \underline{8}$

$(\forall x > 0) : |f(x) - 2| \leq \frac{3x}{x+1} : .1$   
 . f .2