A +书.

A.

6. 1) $f'(x) = 2e x^{e-1} - 1$

2) $f'(x) = e^x (\cos x - \sin x)$

3) $f'(x) = \frac{x-2-x-2}{(x-2)^2} = \frac{-5}{(x-2)^2}$

4) $f'(x) = \frac{\frac{1}{x}\cdot\sin x - \ln x \cdot \cos x}{\sin^2 x}$

7. $f'(x) = (-4x^2 + 11x - 6)' = -8x + 11.$

$f'(x) = (x-2)\cdot -4 + 1\cdot(3-4x) = -8x+11$

8. 1) $h(1) = 8 - \frac{1}{3}\cdot 2 = \frac{22}{3}$, $h'(1) = 2\cdot 5 - \frac{1}{3}\cdot 3 = 9.$

2) $h(1) = 2\cdot 2\cdot 4 - \frac{1}{3} = \frac{47}{3}$ $h'(1) = 2(2\cdot 5 + 3\cdot 4) - \frac{1}{3} = \frac{131}{3}$

3) $h(1) = \frac{7}{6}$ $h'(1) = 4.$

9. 1) $f'(x) = \frac{1}{2}u^{-\frac{1}{2}}\cdot 2 = \frac{1}{\sqrt{2x-5}}$

2) $f'(x) = -\sin\frac{x}{2}\cdot\frac{1}{2} = -\frac{1}{2}\sin\frac{1}{2}x$

3) $f'(x) = -e^{-x-1}$

10. $f'(x) = \frac{-1}{(x-1)^2}$ 或 $f(x) =$

11. $f'(x) = \frac{-12t \cdot 1}{(t+5)^2}$.

    1) $x=5$ $f'(5) = -1.2$

    2) $f'(x) = -2$ $x \approx 2.7$.

12. $f'(x) = \frac{\pi}{4} \cdot 3 \cdot \frac{\pi}{12} \cdot \cos\left(\frac{\pi}{12}t + \frac{5}{6}\pi\right)$

    $f'(6) = -\frac{1}{8}\pi$ $f'(18) = \frac{1}{8}\pi$

练习.

3. $f'(x) =$ $y-2 = -5\pi - 5x$.

4. 1) $f'(x) = 3x \cdot \left(\sqrt{2-x}\right)' + (3x)' \cdot \sqrt{2-x}$.

    $= \frac{1}{2} \cdot (2-x)^{-\frac{1}{2}} \cdot 3x + 3 \cdot \sqrt{2-x}$

    $= -\frac{3}{2}x \cdot (2-x)^{-\frac{1}{2}} + 3 \cdot (2-x)^{\frac{1}{2}}$

    2) $f'(x) = \frac{2 \cdot \frac{1}{2\sqrt{x}} \cdot x - (\ln(2x+1)) \cdot 1}{x^2}$