

$$\begin{aligned}
& \bullet 8x^3 - 6x + 4 \\
& \bullet \frac{4}{(x+2)^2} \\
& \frac{3x+7\sqrt{2x+4}}{2x+4} \\
& \bullet \frac{-1}{(x+2)^2} \bullet \frac{1}{(x+2)^2} \\
& -1 \bullet \frac{(3x+7)\sqrt{2x+4}}{2x+4} \\
& \frac{(16x+2)\sqrt{4x+1}}{(4x+1)^2} \\
& 2x \bullet \frac{-2x\sqrt{5-2x^2}}{5-2x^2} \\
& \frac{(8x+4)\sqrt{4x+1}}{(4x+1)^2} \\
& 6x^2 - 7 \bullet 3 \bullet \frac{3(3+\frac{1}{3}x)^2}{3x} \\
& 36+4 \bullet 7 \bullet \frac{6x^2}{4x-7} \\
& 4x^2 - 7 \bullet 4x \\
& \bullet 36 \bullet \frac{40x^3 + 75x^2 + 24x - 20}{18x^2 + 4x + 4} \\
& \bullet \frac{1}{x^2 + 2x} \\
& \bullet \frac{\sqrt{x+1}}{2(x+1)} \\
& 40(4x+3)^9 \\
& 20(4x+3)^9 \\
& 80(4x+3)^9 \\
& 0 \\
& \bullet -2x \bullet \frac{-2x}{\sqrt{5-2x^2}} \\
& \bullet 10-6x \\
& \bullet 16 \\
& \bullet 5x^4 \bullet 10x+3 \\
& \bullet 6x+7 \bullet 10x \\
& \bullet 0 \\
& \bullet 4x+5 \bullet \frac{4x}{\sqrt{4x+1}}
\end{aligned}$$

Connect the dot for an answer to the dot for the previous answer.  
 Take the derivative of y with respect to x (unless otherwise directed).  
 Simplify each expression.  
 Write each answer in simplest radical form.

1.  $y = 3x^2$
2.  $y = 7x + 6$
3.  $y = x^5$
4.  $y = (x+2)(3x+1)$
5.  $y = 5x^2 + 3x - 1$
6.  $y = (3x^2 + 3)^2$
7.  $y = (x+2)^2$
8.  $y = 12$
9.  $y = \frac{1}{x+3}$
10.  $y = \sqrt{x+1}$
11.  $y = (4x+3)^{10}$
12.  $y = 2(4x+3)^{10}$

13.  $y = \frac{x+1}{x+2}$
14.  $y = \frac{4(x+1)}{x+2}$
15.  $y = 2x^4 - 3x^2 + 4x + 1$
16.  $y = (x+3)\sqrt{2x+4}$
17.  $y = \frac{7(x+1)}{x+2}$
18.  $y = \sqrt{5-2x^2}$
19.  $y = \frac{4x}{\sqrt{4x+1}}$
20.  $y = (3+\frac{1}{3}x)^3$
21.  $y = 3x$
22.  $y = 3x^2 - 7$



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START A NEW LINE.

$$23. y = \frac{2x^5 + 6x^4 + 6x^3 + 2x^2}{x^3 + 3x^2 + 3x + 1}$$

$$24. y = 5x^2 - 4$$

$$25. y = 2x^2 + 5x + 4$$

$$26. y = (5x^2 - 4)(2x^2 + 5x + 4)$$

$$27. y = 9 + 2x^2$$

START A NEW LINE.

$$28. y = 2x^2 - 7x + 15$$

$$29. y = 6x^3 + 2x^2 + 4x - 3$$

30. Find the second derivative of problem # 29.

31. Find the third derivative of problem # 29.

$$32. y = 2x^2 - 7x - 9$$

CIRCLE THE LAST

DOT & ANSWER.

$$33. y = \frac{4x^3 - 4x}{x^2 - 1}$$