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 'dera.htm

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.  $y = 3x^2 - 7$

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.

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