

Circle the correct partial fraction decomposition.

(1) Partialled 1 into three

$$f(x) = \frac{1}{x^2 - 1}$$

(2) reflected over the x-axis

$$f(x) = -\frac{1}{(x^2 - 1)}$$

(3) vertically stretched by 1

$$f(x) = 2(x^2 - 1)$$

(4) vertically stretched by 2

$$f(x) = 2(x^2 - 1)$$

(5) horizontal stretch by the cube

$$f(x) = \sqrt[3]{x^2 - 1}$$

(6) reflected over the y-axis

$$f(x) = \sqrt[3]{1 - x^2}$$

(7) vertically compressed by $\frac{1}{2}$

$$f(x) = \frac{1}{2}(x^2 - 1)$$

(8) vertically compressed by $\frac{1}{2}$

$$f(x) = \sqrt[3]{\frac{1}{2}(x^2 - 1)}$$

Circle the correct partial fraction decomposition for the function below.

(1) Partialled three into one and two thirds

$$f(x) = 4 \log_2(x^2 - 2) = \frac{3}{2}$$

(2) reflected over the x-axis

$$f(x) = -4 \log_2(x^2)$$

(3) vertically stretched by 4

$$f(x) = 4 \log_2(x^2)$$

(4) vertically stretched by 2

$$f(x) = 2 \log_2(x^2)$$

(5) horizontally compressed by $\frac{1}{2}$

$$f(x) = 2 \log_2\left(\frac{1}{2}(x^2)\right)$$

(6) horizontal stretch by the cube root of 5

$$f(x) = 4 \log_2(x^2(x+5)) = 5$$

(7) vertical stretch by 4

$$f(x) = 4 \log_2(x^2)$$

(8) vertically compressed by $\frac{1}{2}$

$$f(x) = \frac{1}{2} 4 \log_2(x^2)$$

(9) horizontally compressed by $\frac{1}{2}$

$$f(x) = 4 \log_2\left(\frac{1}{2}(x^2)\right)$$

(10) horizontal stretch by the cube root of 2

$$f(x) = 4 \log_2(x^2(x+2)) = 2$$