

Fiche de travail : dérivation

Déterminer, dans chaque exercice la fonction dérivée de la fonction proposée.

Exercice n°1: $x \mapsto \frac{-x-4}{4x+1}$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \left(\frac{1+x}{4} \right)$$

Exercice n°2: $x \mapsto \frac{6x+1}{-5x-1}$

$$\frac{z(1-x)}{1} = \frac{z(1-x)}{1}$$

$$\frac{z(1-x)}{1} = \frac{z(1-x)}{1}$$

$$\frac{z(1-x)}{1} = \left(\frac{1-x}{1} \right)$$

Exercice n°3: $x \mapsto \frac{6x-3}{x+5}$

$$\frac{z(5+x)}{3} = \frac{z(5+x)}{3}$$

$$\frac{z(5+x)}{3} = \frac{z(5+x)}{3}$$

$$\frac{z(5+x)}{3} = \left(\frac{5+x}{3} \right)$$

Exercice n°4: $x \mapsto \frac{-2x-2}{3x+1}$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \left(\frac{1+x}{4} \right)$$

Exercice n°5: $x \mapsto \frac{-4x+3}{5x+7}$

$$\frac{z(7+x)}{5} = \frac{z(7+x)}{5}$$

$$\frac{z(7+x)}{5} = \frac{z(7+x)}{5}$$

$$\frac{z(7+x)}{5} = \left(\frac{7+x}{5} \right)$$

Exercice n°6: $x \mapsto \frac{-2x+2}{x+1}$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \frac{z(1+x)}{4}$$

$$\frac{z(1+x)}{4} = \left(\frac{1+x}{4} \right)$$

Exercice n°7: $x \mapsto \frac{3x-2}{3x+4}$

$$\frac{z(4+x)}{18} = \frac{z(4+x)}{18}$$

$$\frac{z(4+x)}{18} = \frac{z(4+x)}{18}$$

$$\frac{z(4+x)}{18} = \left(\frac{4+x}{18} \right)$$

Exercice n°8: $x \mapsto \frac{7x-5}{-4x+1}$

$$\frac{z(1+x)}{2} = \frac{z(1+x)}{2}$$

$$\frac{z(1+x)}{2} = \frac{z(1+x)}{2}$$

$$\frac{z(1+x)}{2} = \left(\frac{1+x}{2} \right)$$

Exercice n°9: $x \mapsto \frac{-3x+1}{5x+7}$

$$\frac{\frac{z(L+x5)}{26} = \frac{z(L+x5)}{2} = \frac{-15x-21-(-)-15x+5}{z(L+x5)} = \frac{-3x+6}{z(L+x5)} = \left(\frac{L+x5}{9+11} \right)$$

Exercise n°10: $x \mapsto \frac{7x+6}{4x+4}$

$$\frac{\frac{z(4+x4)}{4} = \frac{z(4+x4)}{2} = \frac{28x+28-(28x+24)}{z(4+x4)} = \frac{z(4+x4)}{7(4x+4)-4(2x+6)}$$

Exercise n°11: $x \mapsto \frac{6x-1}{6x+7}$

$$\frac{\frac{z(L+x9)}{84} = \frac{z(L+x9)}{2} = \frac{36x+42-(36x+24)}{z(L+x9)} = \frac{z(L+x9)}{6(6x+7)-6(6x-1)}$$

Exercise n°12: $x \mapsto \frac{7x-3}{6x-3}$

$$\frac{\frac{z(3-x9)}{-3} = \frac{z(3-x9)}{2} = \frac{42x-21-(42x-18)}{z(3-x9)} = \frac{z(3-x9)}{7(6x-3)-6(7x-3)}$$

Exercise n°13: $x \mapsto \frac{-4x-3}{3x+4}$

$$\frac{\frac{z(4+x3)}{-7} = \frac{z(4+x3)}{2} = \frac{-12x-16-(-)-12x-9}{z(4+x3)} = \frac{-4(3x+4)-3(-4x-3)}{z(4+x3)}$$

Exercise n°14: $x \mapsto \frac{-3x+6}{4x-4}$

$$\frac{\frac{z(4-x12)}{-12} = \frac{z(4-x12)}{2} = \frac{-12x+12-(-)-12x+24}{z(4-x12)} = \frac{-3(4-x12)-3(-4x-6)}{z(4-x12)}$$

Exercise n°15: $x \mapsto \frac{4x-3}{x-3}$

$$\frac{\frac{z(3-x)}{-9} = \frac{z(3-x)}{2} = \frac{4x-12-(4x-3)}{z(3-x)} = \frac{z(3-x)}{4(4x-3)-1(4x-3)}$$

Exercise n°16: $x \mapsto \frac{-2x+4}{4x+5}$

$$\frac{\frac{z(4+x5)}{-26} = \frac{z(4+x5)}{2} = \frac{-8x-10-(-)-8x+16}{z(4+x5)} = \frac{-2(4x+5)-4(-2x+4)}{z(4+x5)}$$

Exercise n°17: $x \mapsto \frac{-x-3}{-5x+2}$

$$\frac{z(2+x5-)}{z1-} =$$

$$\frac{z(2+x5-)}{z(2+x5-)} =$$

$$\frac{z(2+x5-)}{z(2+x5-)} = \left(\frac{z+x5-}{z-3} \right)$$

Exercise n°18: $x \mapsto \frac{6x-2}{-5x+1}$

$$\frac{z(1+x5-)}{z-4} =$$

$$\frac{z(1+x5-)}{z(1+x5-)} =$$

$$\frac{z(1+x5-)}{z(1+x5-)} = \left(\frac{1+x5-}{z-2} \right)$$

Exercise n°19: $x \mapsto \frac{3x-4}{4x+2}$

$$\frac{z(4+x2)}{z2} =$$

$$\frac{z(4+x2)}{z(4+x2)} =$$

$$\frac{z(4+x2)}{z(4+x2)} = \left(\frac{z+2}{z-4} \right)$$

Exercise n°20: $x \mapsto \frac{-5x-2}{-5x-4}$

$$\frac{z(-5x-4)}{z} =$$

$$\frac{z(-5x-4)}{z(-5x-4)} =$$

$$\frac{z(-5x-4)}{z(-5x-4)} = \left(\frac{-5x-2}{-5x-4} \right)$$

Exercise n°21: $x \mapsto \frac{6x-5}{2x-5}$

$$\frac{z(2-x2)}{z-20} =$$

$$\frac{z(2-x2)}{z(2-x2)} =$$

$$\frac{z(2-x2)}{z(2-x2)} = \left(\frac{5-x2}{6(2x-5)-2(6x-5)} \right)$$

Exercise n°22: $x \mapsto \frac{-4x+7}{7x+5}$

$$\frac{z(5+x2)}{z-69} =$$

$$\frac{z(5+x2)}{z(5+x2)} =$$

$$\frac{z(5+x2)}{z(5+x2)} = \left(\frac{5+x2}{z+7} \right)$$

Exercise n°23: $x \mapsto \frac{7x-4}{3x-4}$

$$\frac{z(7-x3)}{z-19} =$$

$$\frac{z(7-x3)}{z(7-x3)} =$$

$$\frac{z(7-x3)}{z(7-x3)} = \left(\frac{3-x3}{7(3x-4)-3(7x-4)} \right)$$

Exercise n°24: $x \mapsto \frac{-3x+3}{6x+1}$

$$\frac{z(1+x6)}{z-21} =$$

$$\frac{z(1+x6)}{z(1+x6)} =$$

$$\frac{z(1+x6)}{z(1+x6)} = \left(\frac{1+x6}{-3x+3} \right)$$

Exercise n°25: $x \mapsto \frac{-4x-2}{5x-5}$

$$\frac{z(5-x5)}{z-30} =$$

$$\frac{z(5-x5)}{z(5-x5)} =$$

$$\frac{z(5-x5)}{z(5-x5)} = \left(\frac{5-x5}{-4(5x-5)-5(-4x-2)} \right)$$

Exercise n°26: $x \mapsto \frac{-5x+7}{4x-3}$

$$\frac{z(4-x)}{z^2} = \frac{-13}{z}$$

$$\frac{z(3-x)}{z^2} = \frac{-20x+15}{z}$$

$$\frac{z(4-x)}{z^2} = \left(\frac{4-x}{z} \right)$$

$$\frac{z(4-x-3)}{z^2} = \left(\frac{4-x-3}{z} \right)$$

Exercise n°27: $x \mapsto \frac{2x+2}{-5x-4}$

$$\frac{z(4-x)}{z^2} = \frac{-5x-4}{z}$$

$$\frac{z(4-x)}{z^2} = \frac{-10x-8}{z}$$

$$\frac{z(4-x)}{z^2} = \left(\frac{4-x}{z} \right)$$

$$\frac{z(4-x-5)}{z^2} = \left(\frac{4-x-5}{z} \right)$$

Exercise n°28: $x \mapsto \frac{-5x-2}{-4x+7}$

$$\frac{z(4-x)}{z^2} = \frac{-4x+7}{z}$$

$$\frac{z(4-x)}{z^2} = \frac{20x-35}{z}$$

$$\frac{z(4-x)}{z^2} = \left(\frac{4-x}{z} \right)$$

$$\frac{z(4-x-2)}{z^2} = \left(\frac{4-x-2}{z} \right)$$

Exercise n°29: $x \mapsto \frac{x+2}{-x+4}$

$$\frac{z(4-x)}{z^2} = \frac{-x+4}{z}$$

$$\frac{z(4-x)}{z^2} = \frac{-x+4}{z}$$

$$\frac{z(4-x)}{z^2} = \left(\frac{4-x}{z} \right)$$

$$\frac{z(4-x-1)}{z^2} = \left(\frac{4-x-1}{z} \right)$$

Exercise n°30: $x \mapsto \frac{-x+5}{x+7}$

$$\frac{z(4-x)}{z^2} = \frac{-x+5}{z}$$

$$\frac{z(4-x)}{z^2} = \frac{-x+5}{z}$$

$$\frac{z(4-x)}{z^2} = \left(\frac{4-x}{z} \right)$$

$$\frac{z(4-x-1)}{z^2} = \left(\frac{4-x-1}{z} \right)$$

Exercise n°31: $x \mapsto \frac{-5x+7}{7x+3}$

$$\frac{z(3+x)}{z^2} = \frac{-5x+7}{z}$$

$$\frac{z(3+x)}{z^2} = \frac{-35x+15}{z}$$

$$\frac{z(3+x)}{z^2} = \left(\frac{3+x}{z} \right)$$

$$\frac{z(3+x-5)}{z^2} = \left(\frac{3+x-5}{z} \right)$$

Exercise n°32: $x \mapsto \frac{x+4}{3x+7}$

$$\frac{z(3+x)}{z^2} = \frac{x+4}{z}$$

$$\frac{z(3+x)}{z^2} = \frac{3x+7}{z}$$

$$\frac{z(3+x)}{z^2} = \left(\frac{3+x}{z} \right)$$

$$\frac{z(3+x-3)}{z^2} = \left(\frac{3+x-3}{z} \right)$$

Exercise n°33: $x \mapsto \frac{-2x-3}{7x+2}$

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

$$\frac{z(2+x)}{z^2} = \frac{-14x-7}{z}$$

$$\frac{z(2+x)}{z^2} = \left(\frac{2+x}{z} \right)$$

$$\frac{z(2+x-2)}{z^2} = \left(\frac{2+x-2}{z} \right)$$

Exercise n°34: $x \mapsto \frac{5x-2}{-4x+1}$

$$\frac{z(1+x)}{z^2} = \frac{5x-2}{z}$$

$$\frac{z(1+x)}{z^2} = \frac{-20x+10}{z}$$

$$\frac{z(1+x)}{z^2} = \left(\frac{1+x}{z} \right)$$

$$\frac{z(1+x-5)}{z^2} = \left(\frac{1+x-5}{z} \right)$$