

1.8.1  
→ 3

$$\log_{3x+7} (5x+3) + \log_{5x+3} (3x+7) > 2$$

$$\log_{3x+7} (5x+3) = t \quad | \cdot 10)$$

$$t + \frac{1}{t} > 2$$

$$\frac{t^2 - 2t + 1}{t} > 0 \quad \frac{+}{- \quad +}$$

$$1 \neq t > 0$$

תחום התחלה

$$\begin{aligned} -2 + x > -\frac{7}{5} &\leftarrow 1 \neq 3x+7 > 0 \\ \boxed{-\frac{2}{5} + x > -\frac{3}{5}} &\leftarrow 1 \neq 5x+3 > 0 \end{aligned}$$

$$1 \neq \log_{3x+7} (5x+3) > 0$$

$$\begin{aligned} \downarrow \\ 3x+7 \neq 5x+3 \\ x \neq 2 \end{aligned}$$

$$\log_{3x+7} (5x+3) > \log_{3x+7} 1$$

$$(3x+7-1)(5x+3-1) < 0$$

$$\begin{aligned} \downarrow \quad \quad \downarrow \\ x = -2 \quad x = -\frac{2}{5} \end{aligned}$$

$$\begin{array}{c} + \\ - \quad -2 \quad -\frac{2}{5} \quad - \end{array}$$

$$\boxed{x < -2 \quad || \quad x > -\frac{2}{5}}$$

$$\boxed{\begin{aligned} -2 < x \\ -\frac{2}{5} < x < 2 \\ x > 2 \end{aligned}}$$

פונקציה יחסית עולה

$$\boxed{\begin{aligned} -\frac{2}{5} < x < 2 \\ x > 2 \end{aligned}}$$