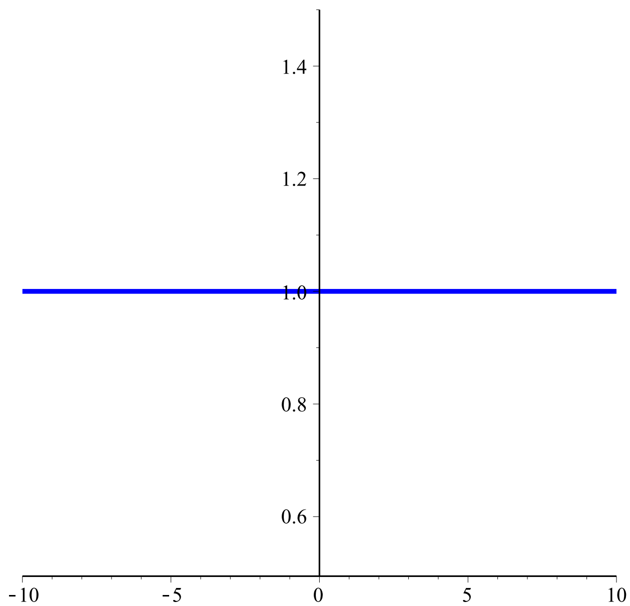
> $'\sum_{n=1}^{infinity} \frac{6}{36\cdot n^2 - 24\cdot n - 5}' = \sum_{n=1}^{infinity} \frac{6}{36\cdot n^2 - 24\cdot n - 5}$

$$\sum_{n=1}^{\infty} \frac{6}{36\, n^2 - 24\, n - 5} = 1 \qquad (1)$$

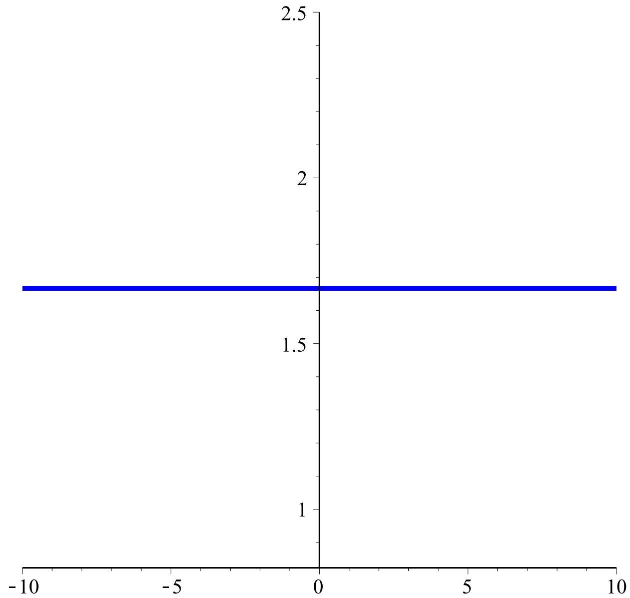
> $plot\left(\sum_{n=1}^{infinity} \frac{6}{36\cdot n^2 - 24\cdot n - 5}, color = blue, thickness = 3\right)$



> $'\sum_{n=3}^{infinity} \frac{5\cdot n - 2}{n\cdot(n-1)\cdot(n+2)}' = \sum_{n=3}^{infinity} \frac{5\cdot n - 2}{n\cdot(n-1)\cdot(n+2)}$

$$\sum_{n=3}^{\infty} \frac{5\, n - 2}{n\, (n-1)\, (n+2)} = \frac{5}{3} \qquad (2)$$

> $plot\left(\sum_{n=3}^{infinity} \frac{5\cdot n - 2}{n\cdot(n-1)\cdot(n+2)}, color = blue, thickness = 3\right)$



> $n := 1$:**while** $\dfrac{\mathrm{abs}\left((-1)^{n}\right)}{(2\cdot n)!!} > 0.001$ **do** $n := n+1$ **od**; '*result*' $= n$;

$$n := 2$$
$$n := 3$$
$$n := 4$$
$$n := 5$$
$$result = 5 \tag{3}$$

> $\displaystyle\sum_{k=1}^{5} \frac{(-1)^{k}}{(2\cdot k)!!}$

$$-\frac{1511}{3840} \tag{4}$$

> $evalf(\%, 5)$

$$-0.39349 \tag{5}$$

> $evalf\left(\left(\displaystyle\sum_{k=1}^{infinity} \frac{(-1)^{k}}{(2\cdot k)!!}\right) - \left(\sum_{k=1}^{5} \frac{(-1)^{k}}{(2\cdot k)!!}\right)\right)$

$$0.0000202429 \tag{6}$$

> $is(\% < 0.001)$

$$true \tag{7}$$

> **if** $evalf\left(limit\left(\frac{\frac{(2\cdot n)!!}{(n+1)^{(n+1)}}}{\frac{(2\cdot n-1)!!}{n^n}}, n = infinity\right)\right) < 1.0$ **then** '*Сходится по признаку Даламбера*'
fi

Сходится по признаку Даламбера **(8)**

> $'\lim_{n \to infinity} \frac{(2\cdot n-1)!!}{n^n}' = \lim_{n \to infinity} \frac{(2\cdot n-1)!!}{n^n}$

$$\lim_{n\to\infty} \frac{(2\,n-1)!!}{n^n} = 0 \tag{9}$$

>

>