Zadanie 1

1.

$a_1$ = 3

$a_2$ = 5

$a_7$ = 15

$a_{n+1}$ = 2n+3

$a_{n+7}$ = 2n+15

2.

$a_1$ = 4

$a_3$ = 16

$a_7$ = 128

$a_{n-2}$ = $2^{n-1}$

$a_{n+3}$ = $2^{n+4}$

3.

$a_2$ = $\frac{2}{3}$

$a_4$ = $\frac{4}{5}$

$a_7$ = $\frac{7}{8}$

$a_{n-1}$ = $\frac{n-1}{n}$

$a_{2n+3}$ = $\frac{2n+3}{2n+4}$

4.

$a_1$ = -1

$a_2$ = $\frac{1}{4}$

$a_3$ = $-\frac{1}{9}$

$a_4$ = $\frac{1}{16}$

$a_8$ = $\frac{1}{64}$

$a_9$ = $\frac{1}{81}$

$a_{2n}$ = $\frac{(1)^n}{4n^2}$

$a_{2n+1}$ = $\frac{-(1)^n}{4n^2}$

5.

$a_1 = \frac{7}{8}$

$a_2 = \frac{3}{2}$

$a_{n-1} = \frac{4n^2+-3n-3}{3n2-7n+10}$

Zadanie 2

1. lim = 1
2. lim = - $\frac{4}{5}$
3. lim = $\frac{4}{3}$
4. lim = -2
5. lim = 4
6. lim = $\frac{1}{3}$
7. lim = $\frac{4}{12}$
8. lim = - $\frac{8}{80}$
9. lim = 0
10. lim = $\frac{125}{27}$
11. lim = 1
12. lim = $\infty$
13. lim = $\frac{-2}{\sqrt{2}+\sqrt{4}}$
14. lim = $\sqrt{3}$
15. lim = $\sqrt[3]{\frac{1}{8}}$
16. lim = $\frac{\sqrt{1}}{3}$
17. lim = 1
18. lim = $\frac{1}{2}$
19. lim = $\frac{2}{3}$
20. lim =

Zadanie 3

1. lim = 0
2. lim = 0

3. lim = $+\infty$

Zadanie 4

1. lim = $+\infty$
2. lim = $-\infty$
3. lim = $-\infty$