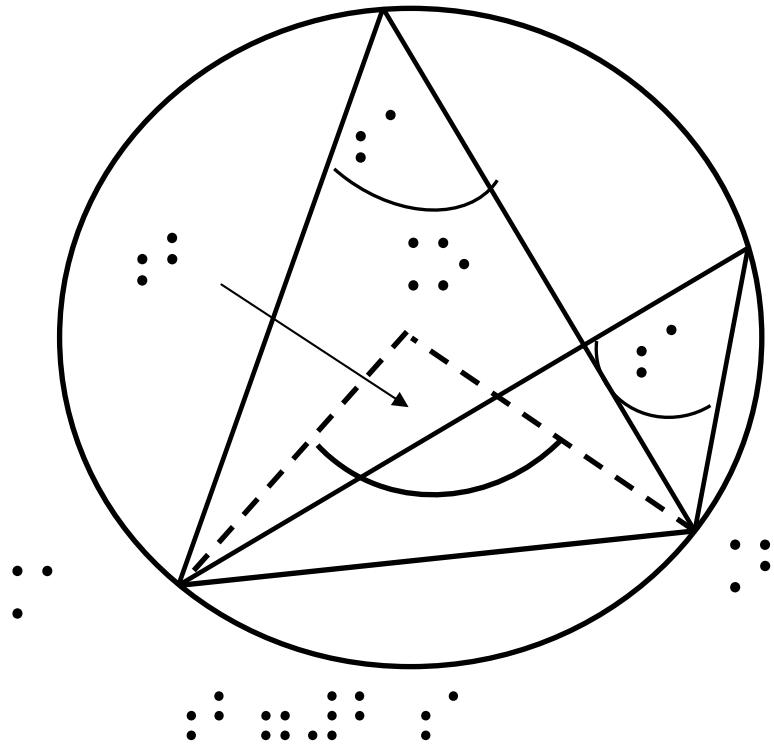
ZESTAW

WYBRANYCH WZORÓW

MATEMATYCZNYCH

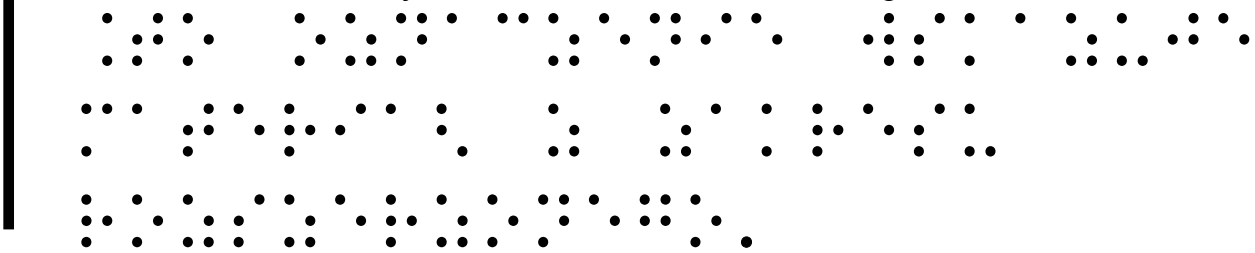


Materiały pomocnicze opracowane dla potrzeb egzaminu maturalnego i dopuszczone jako pomoce egzaminacyjne.

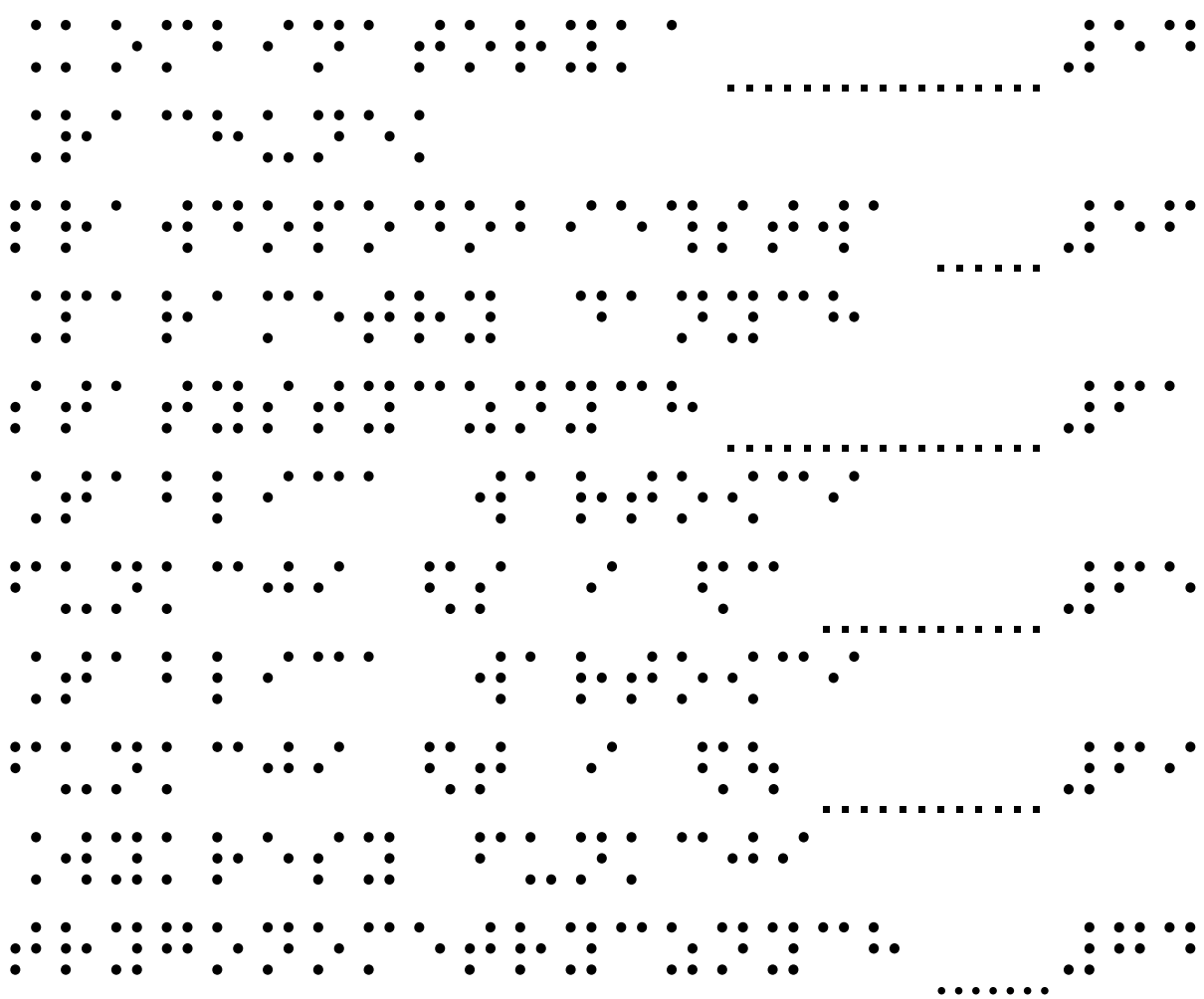
Zestaw matematycznych wzorów został przygotowany dla potrzeb egzaminu maturalnego z matematyki. Zestaw ten został opracowany w Centralnej Komisji Egzaminacyjnej we współpracy z pracownikami wyższych uczelni oraz w konsultacji z ekspertami z okręgowych komisji egzaminacyjnych.

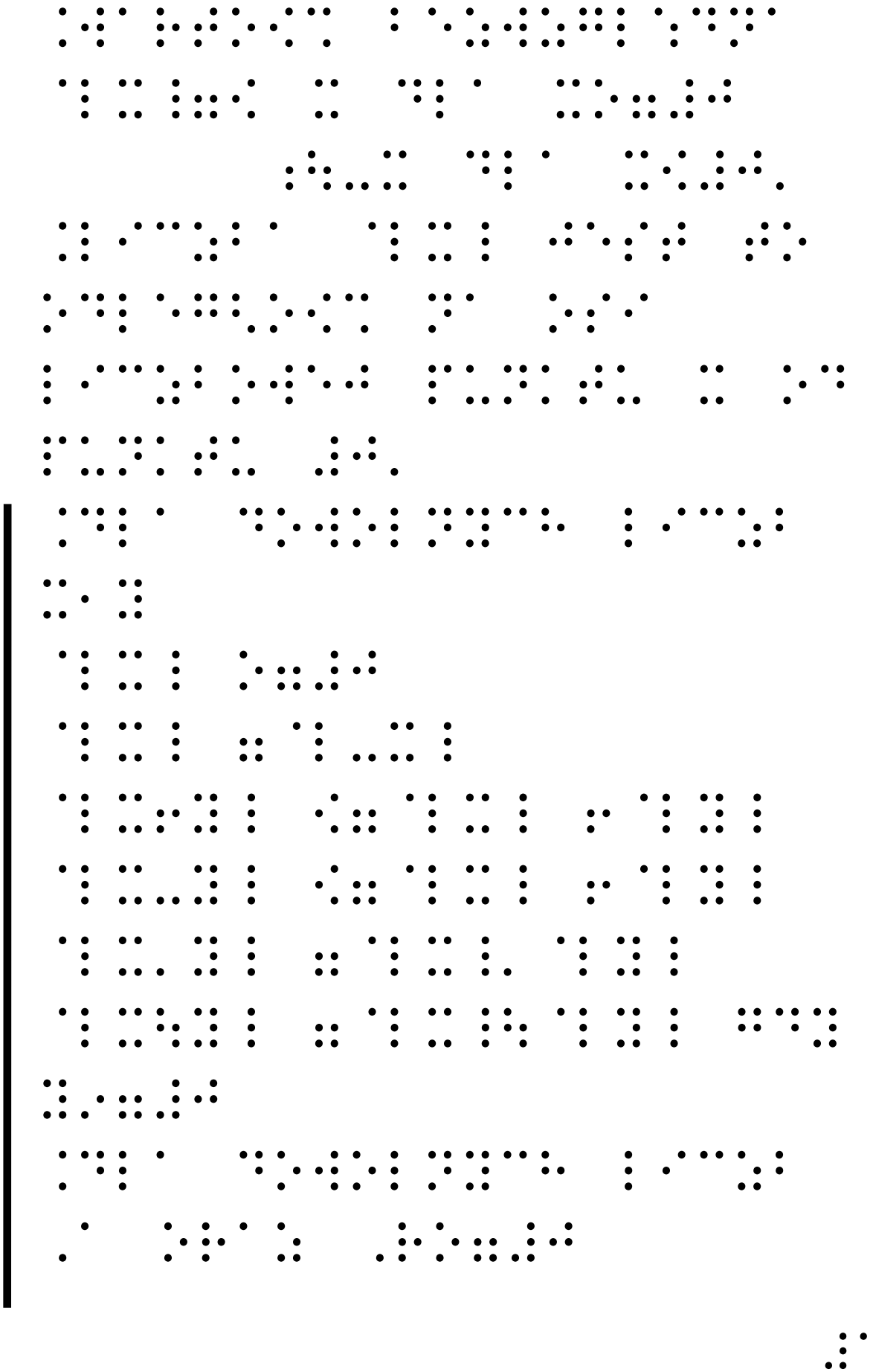
Na zlecenie CKE zestaw wzorów matematycznych dla potrzeb egzaminu maturalnego z matematyki dla niewidomych i słabo widzących przystosowały mgr Bogumiła Golańska i mgr inż. Agnieszka Lato w Specjalnym Ośrodku Szkolno Wychowawczym dla Dzieci Niewidomych i Słabowidzących, Kraków ul. Tyniecka 7.

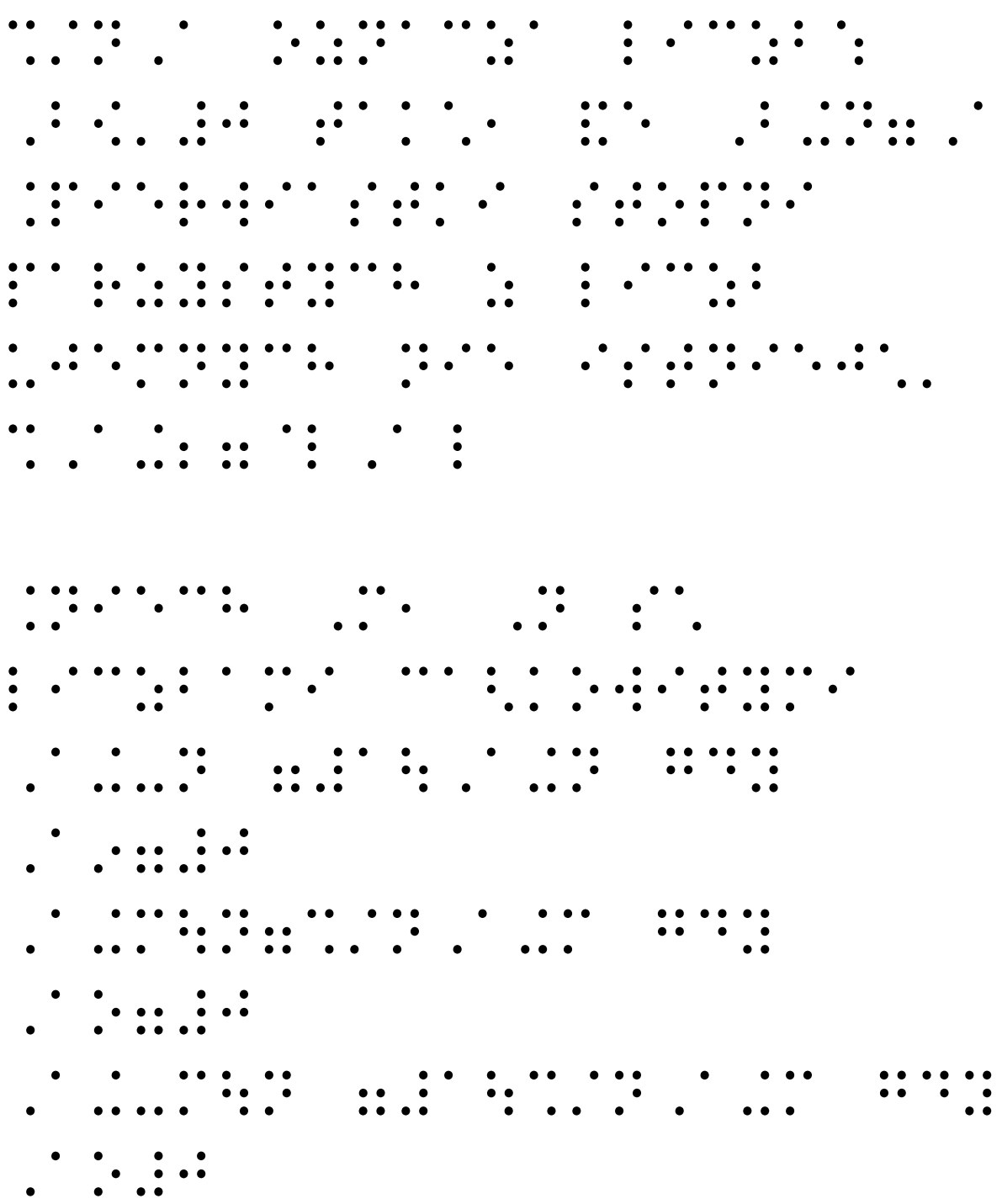
To oznaczenie wskazuje materiał z zakresu rozszerzonego.

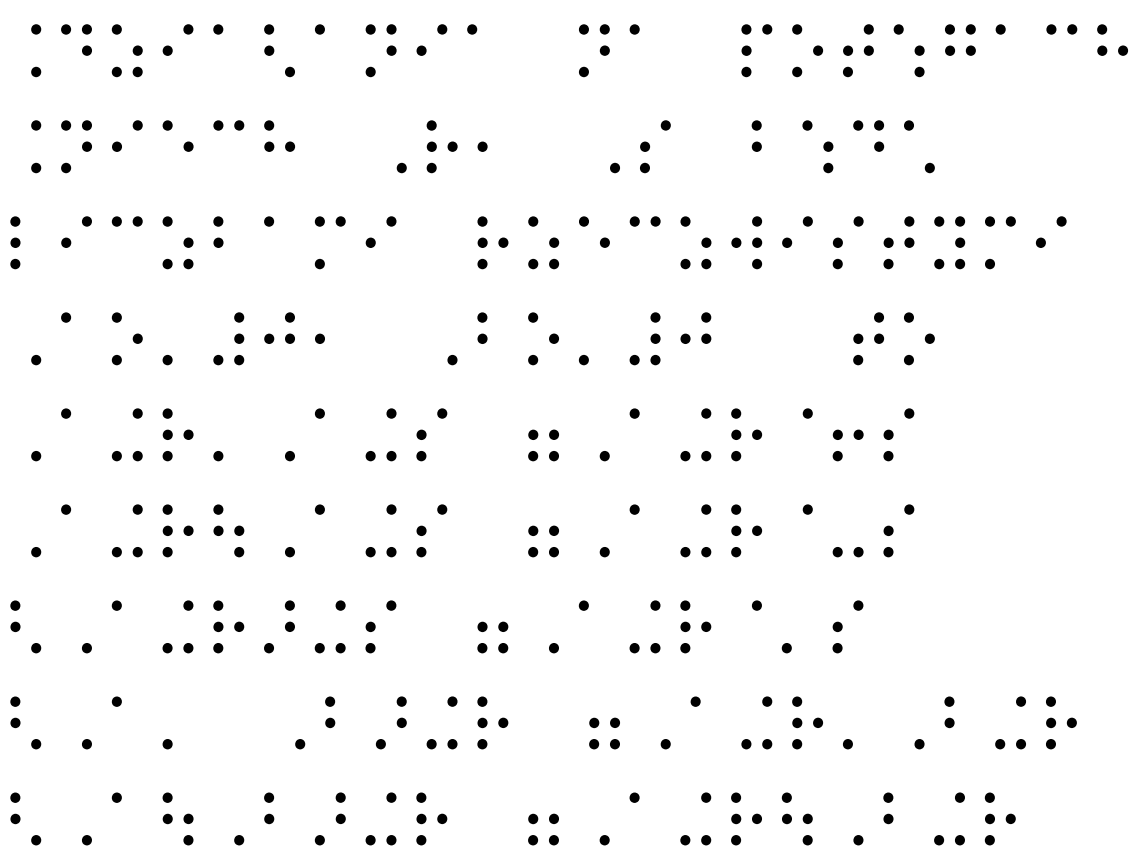


SPIS TREŚCI

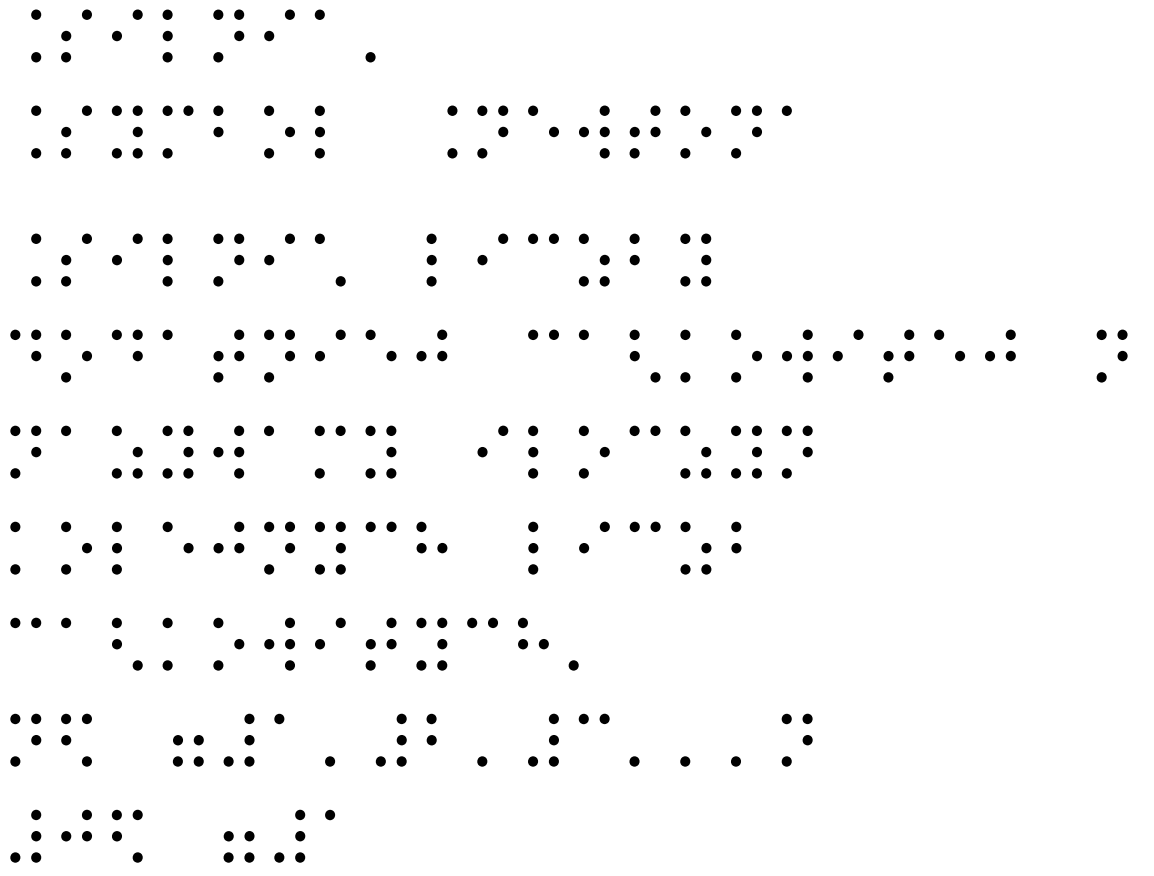


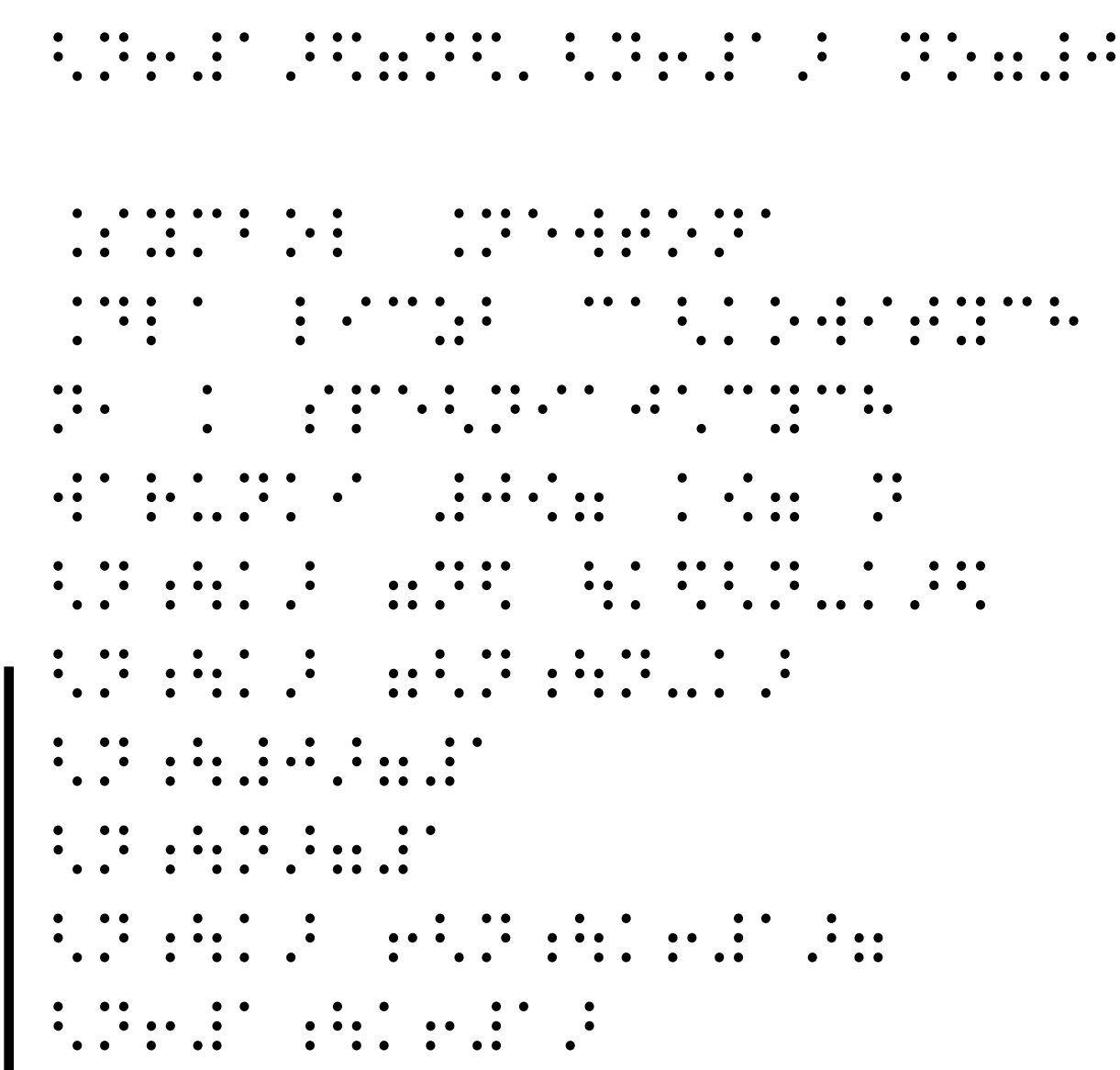




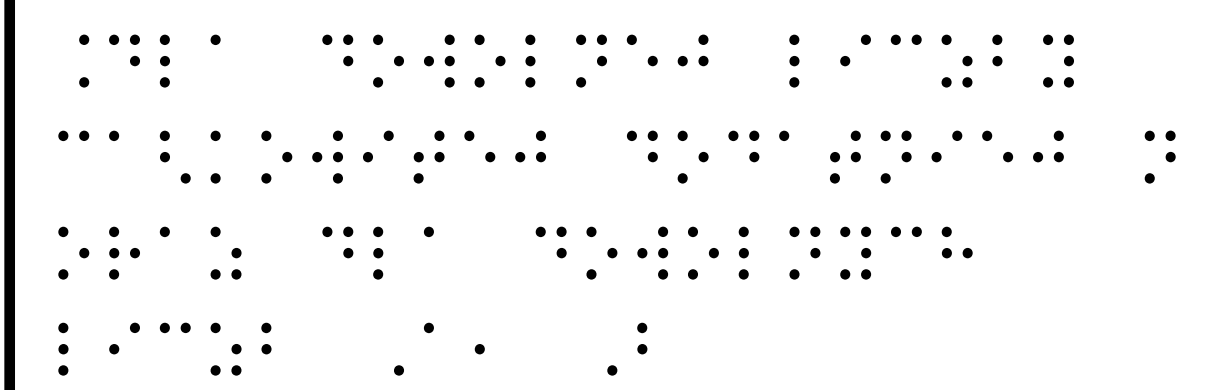


Silnia. Symbol Newtona

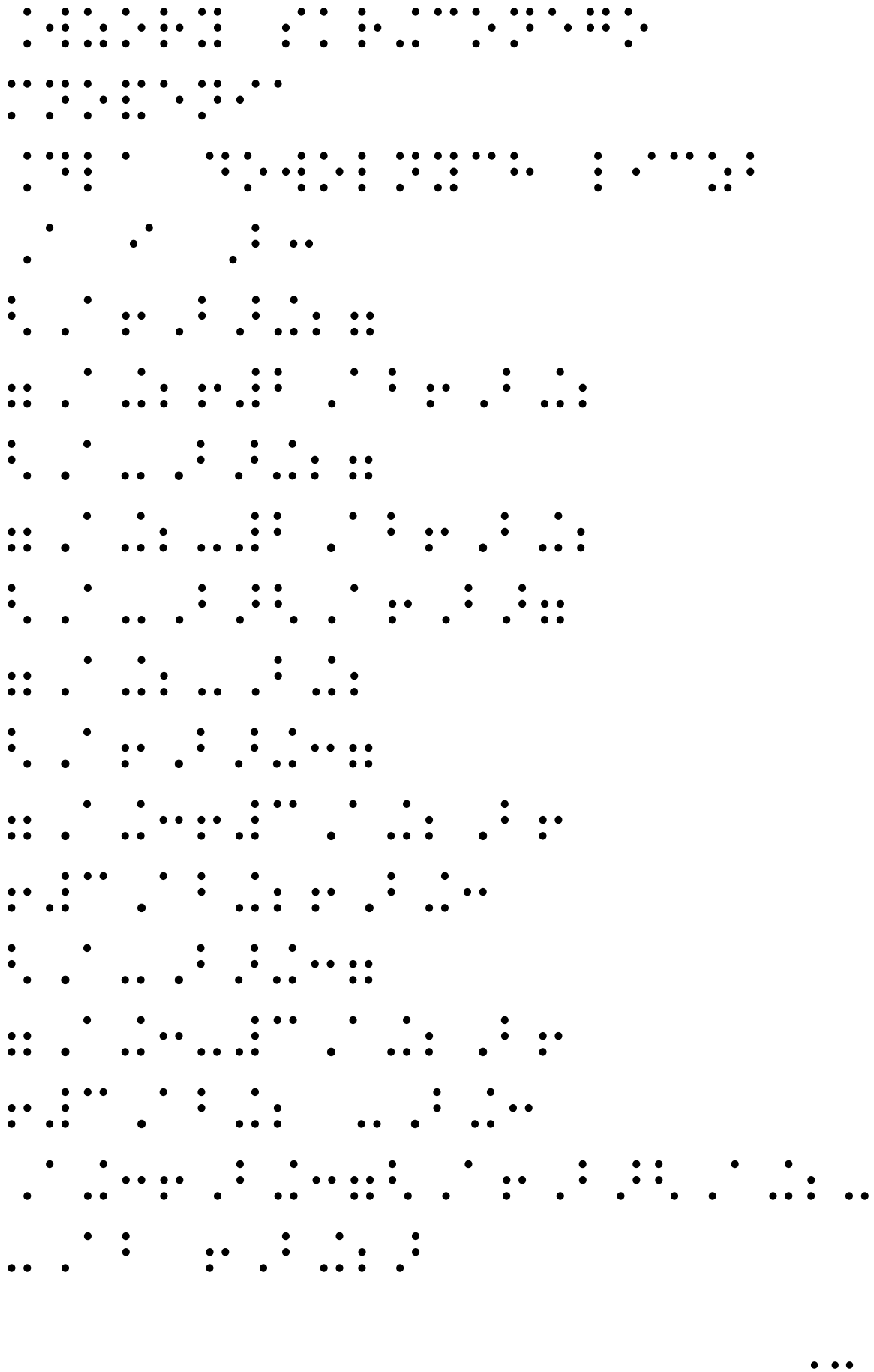


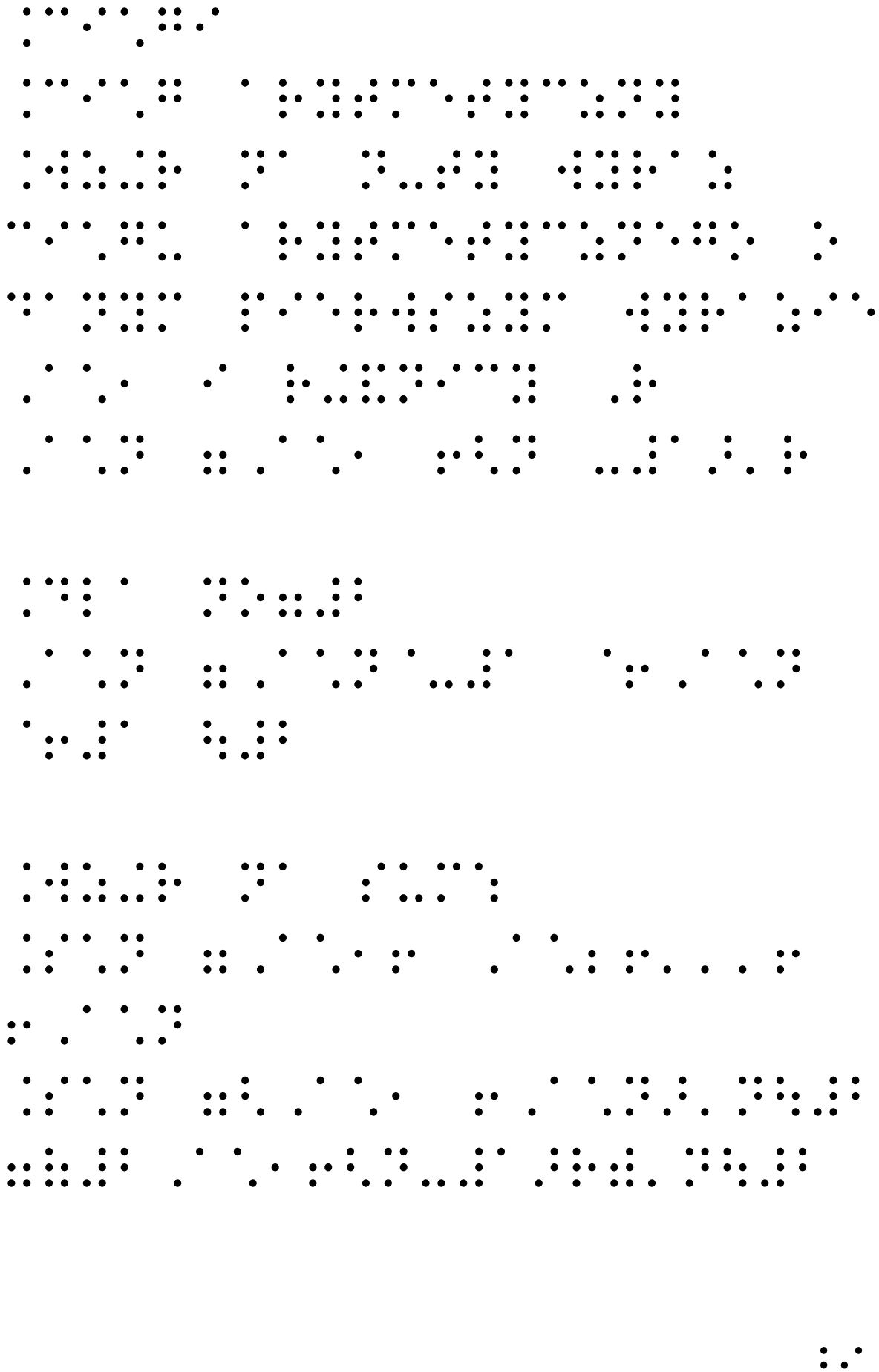


Dwumian Newtona



Wzory skróconego mnożenia





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⠨⠙⠇⠁ ⠝ ⠕⠶⠼⠃
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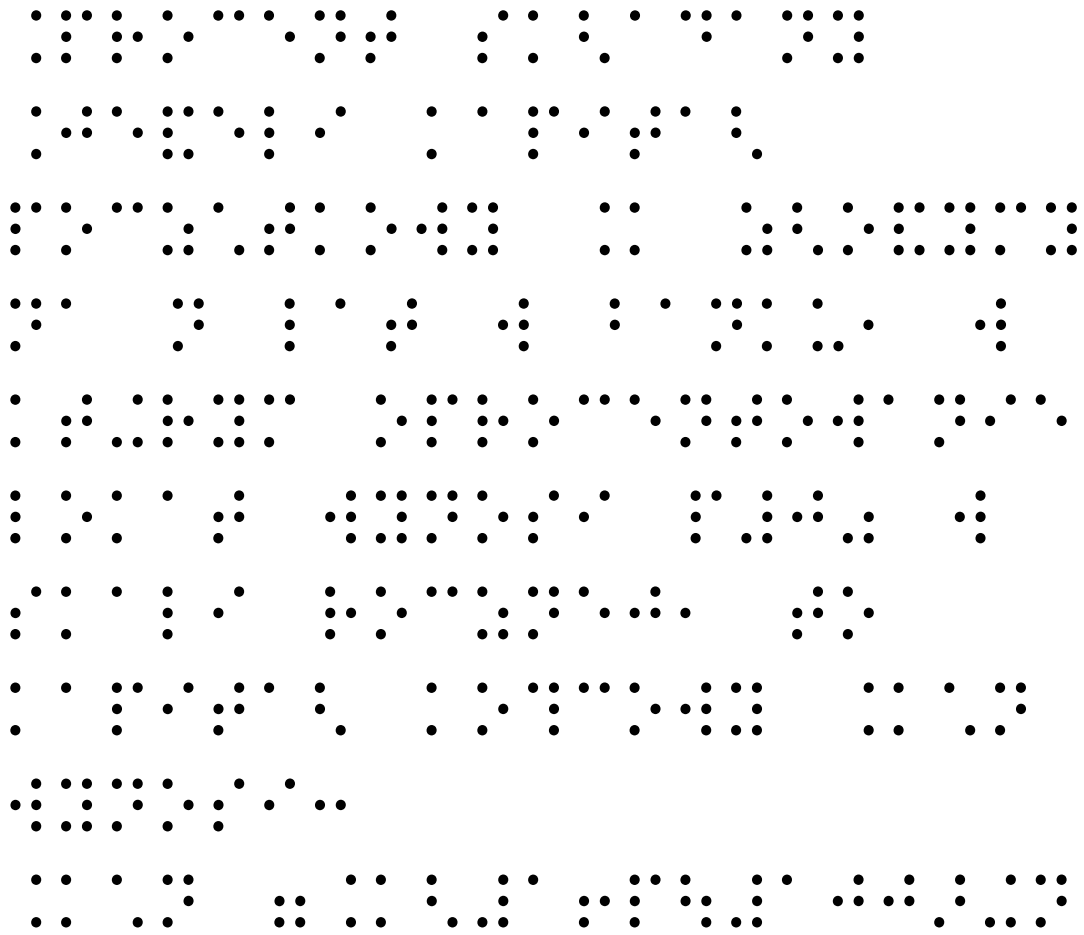
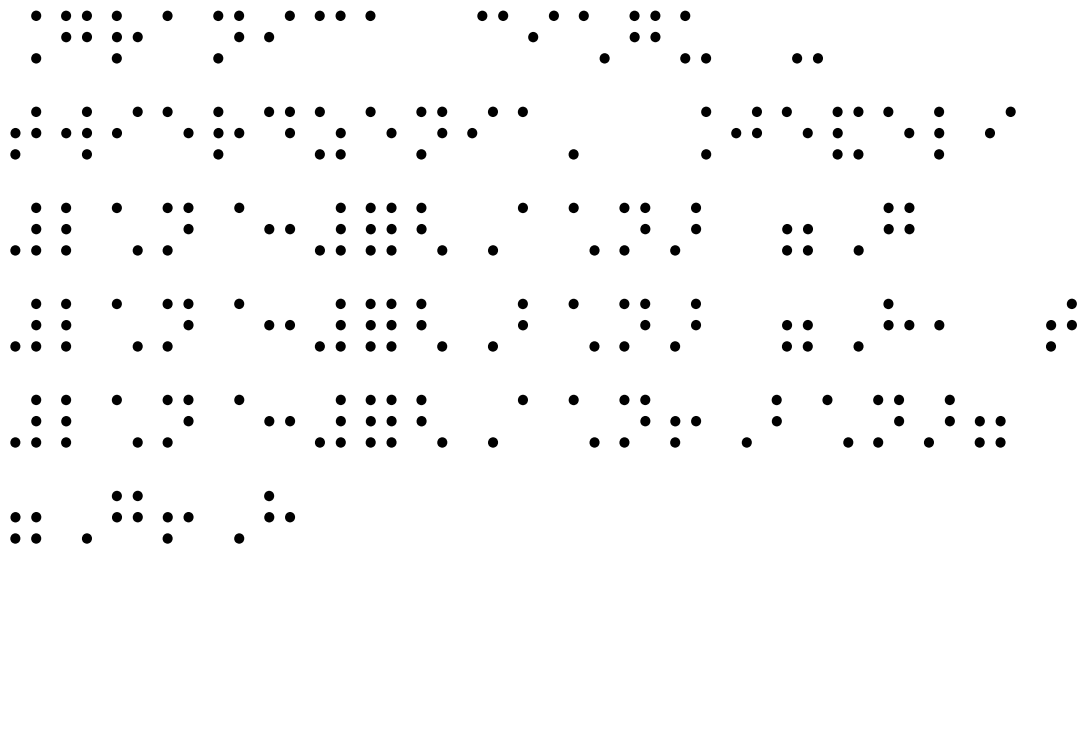
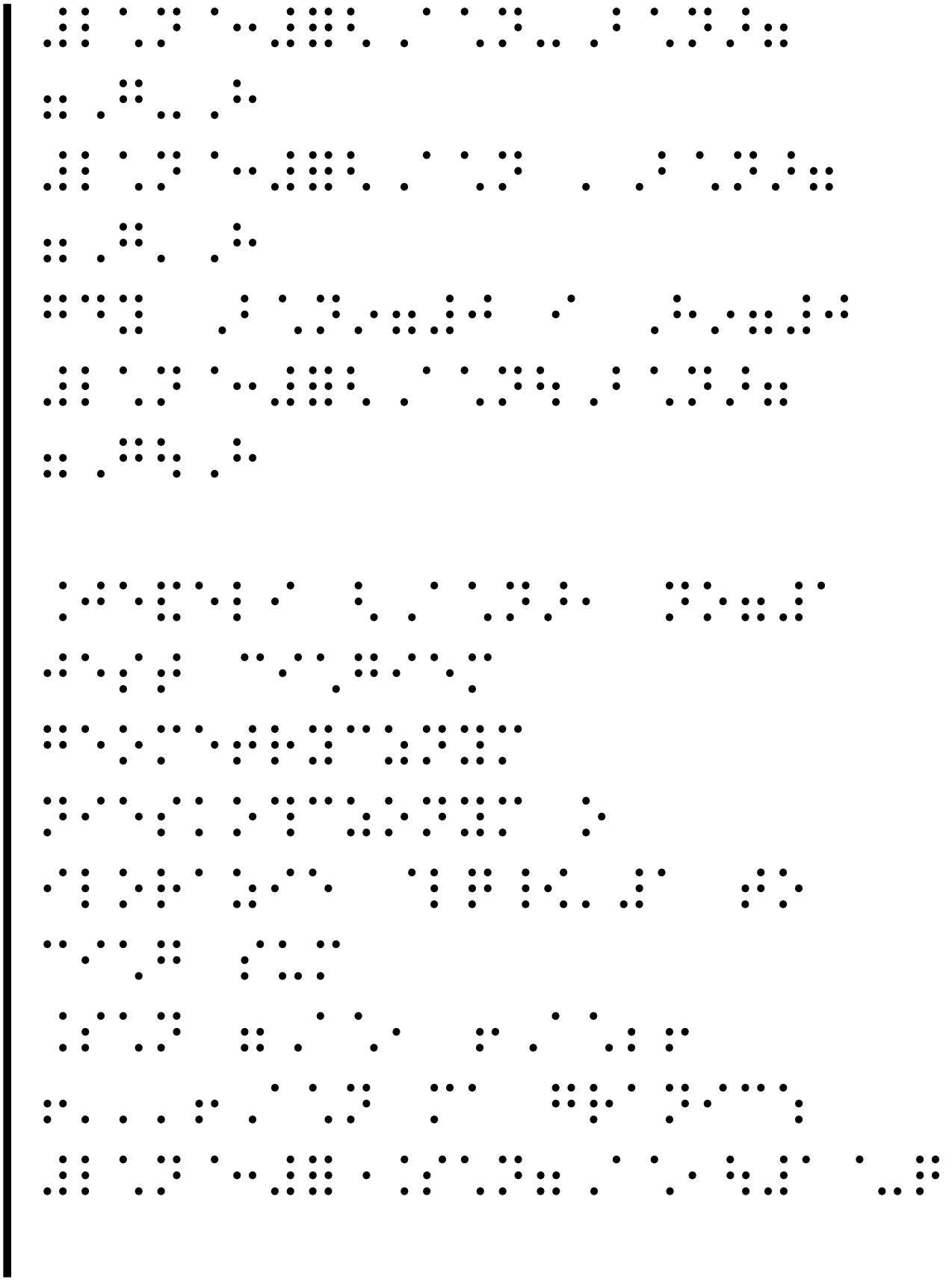
⠨⠎⠡⠝ ⠶⠝⠄⠠⠁⠡⠂ ⠙⠇⠁ ⠟ ⠶⠼⠁

Procent składany

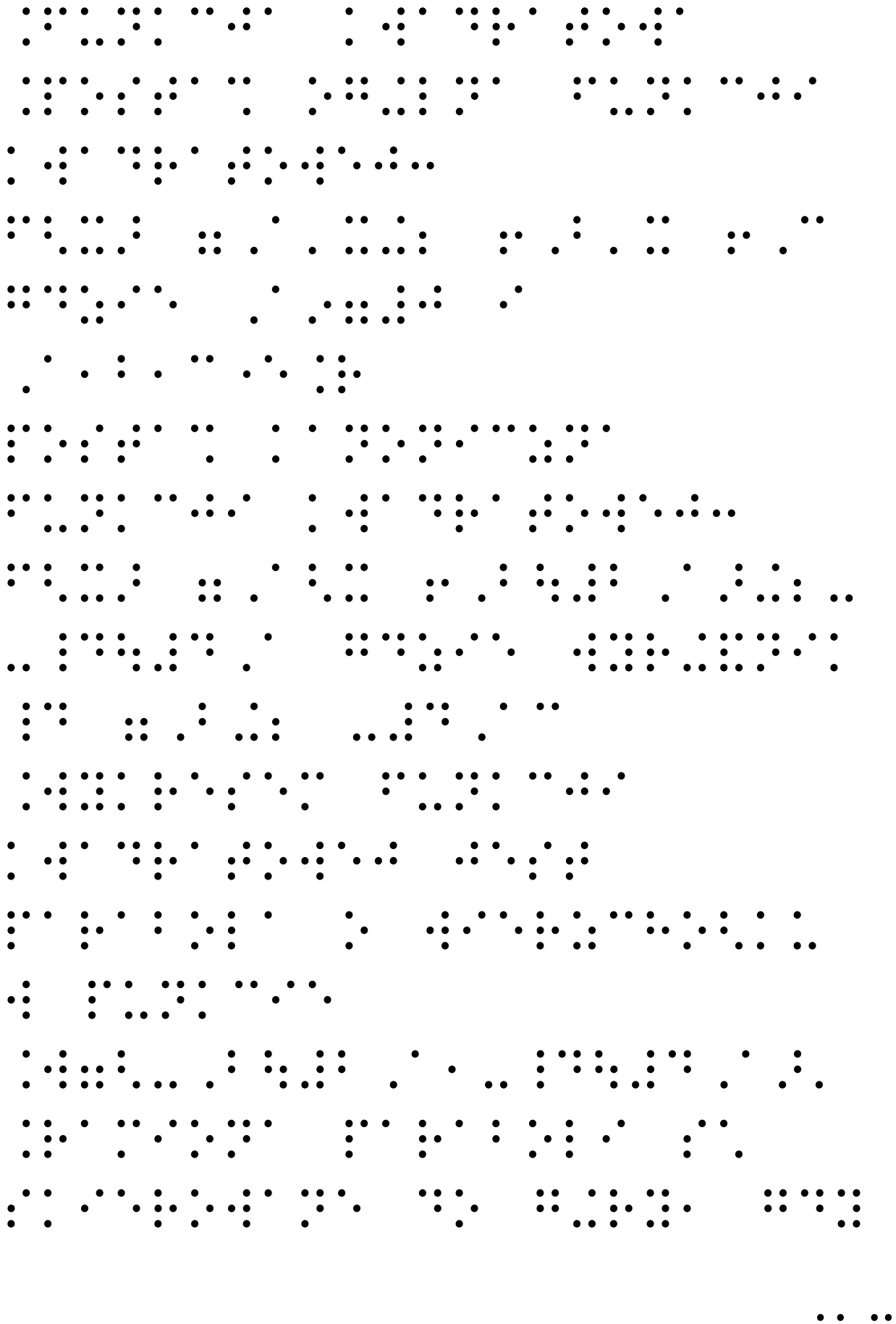


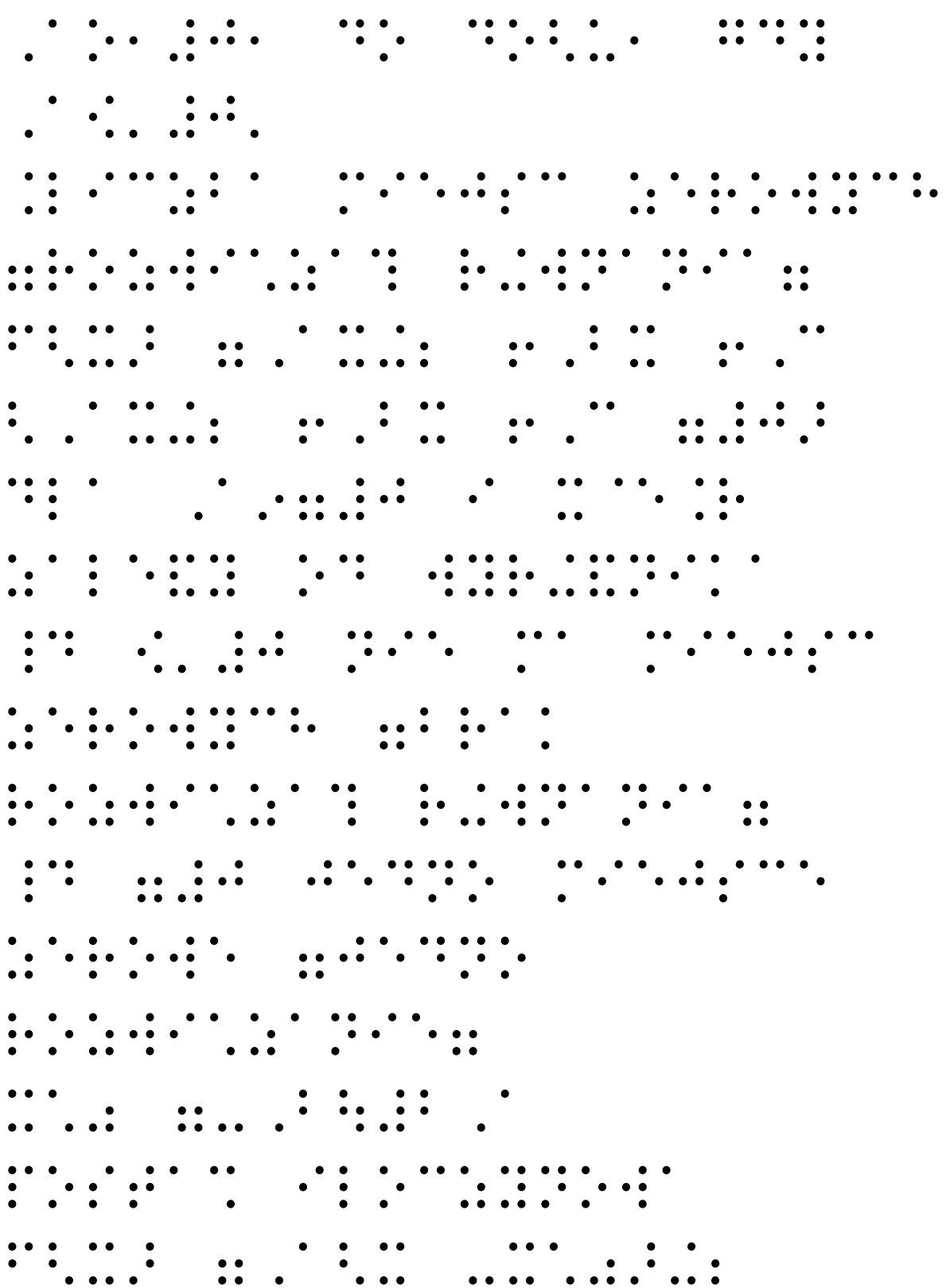
Granica ciągu

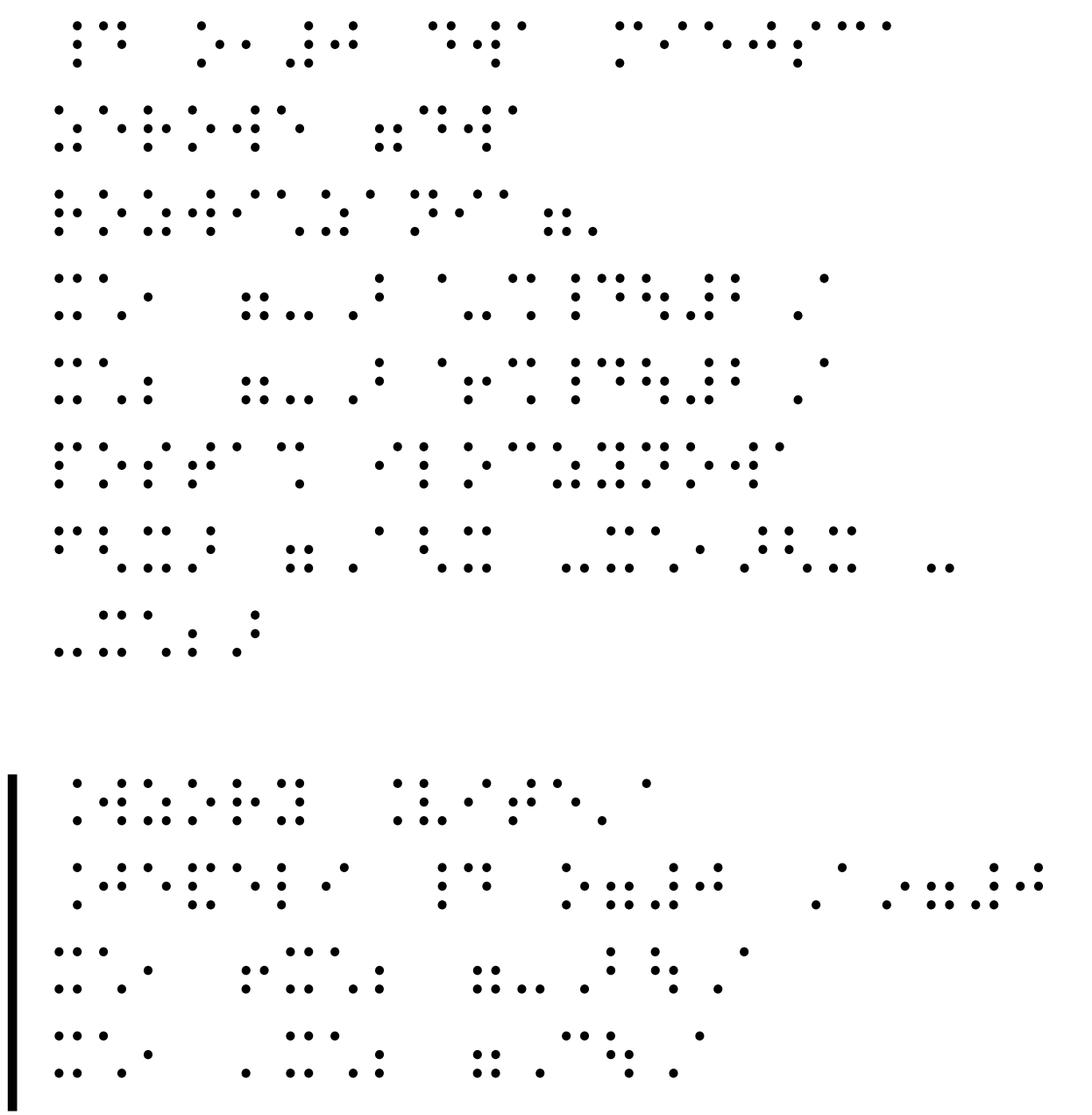


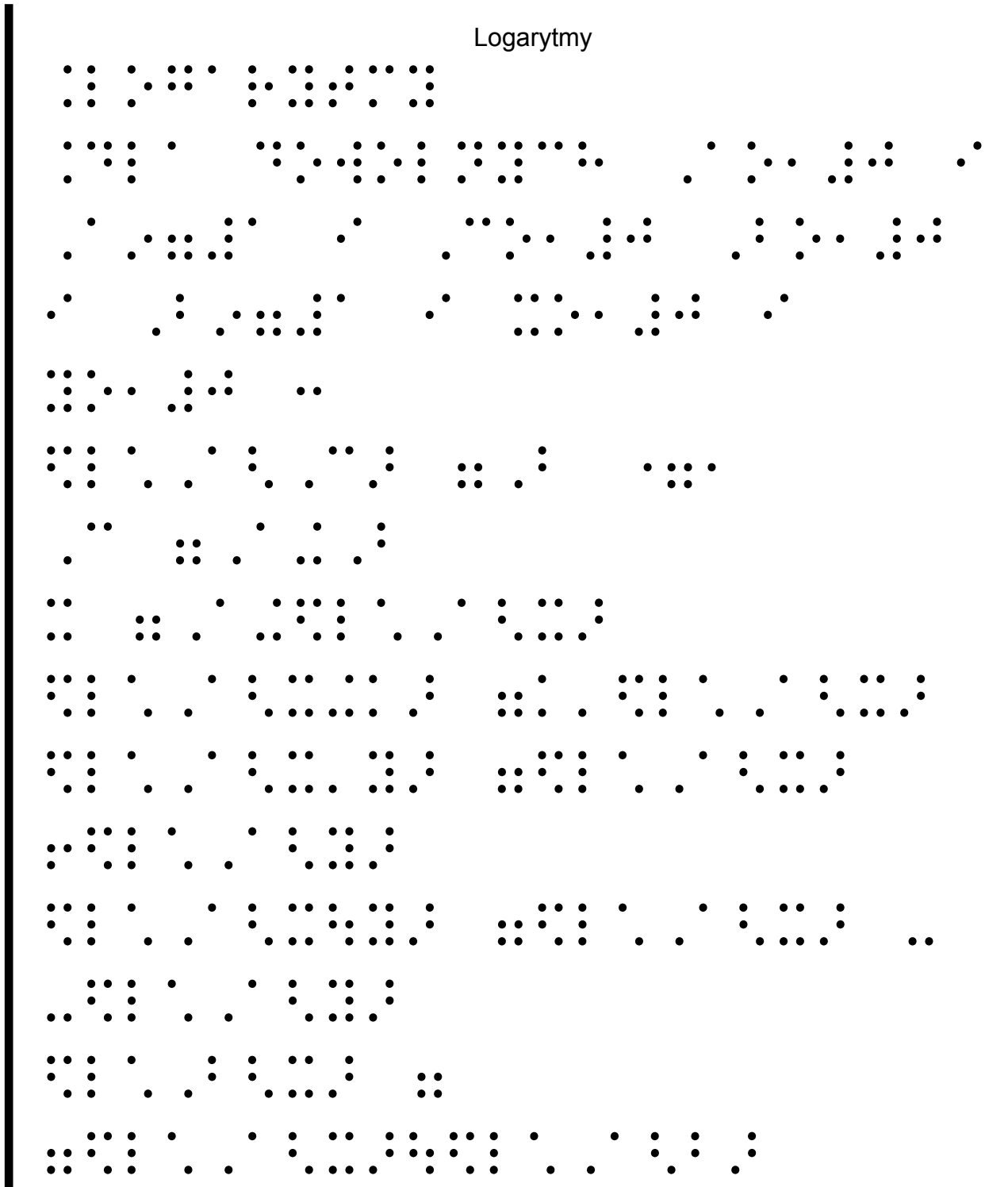


Funkcja kwadratowa

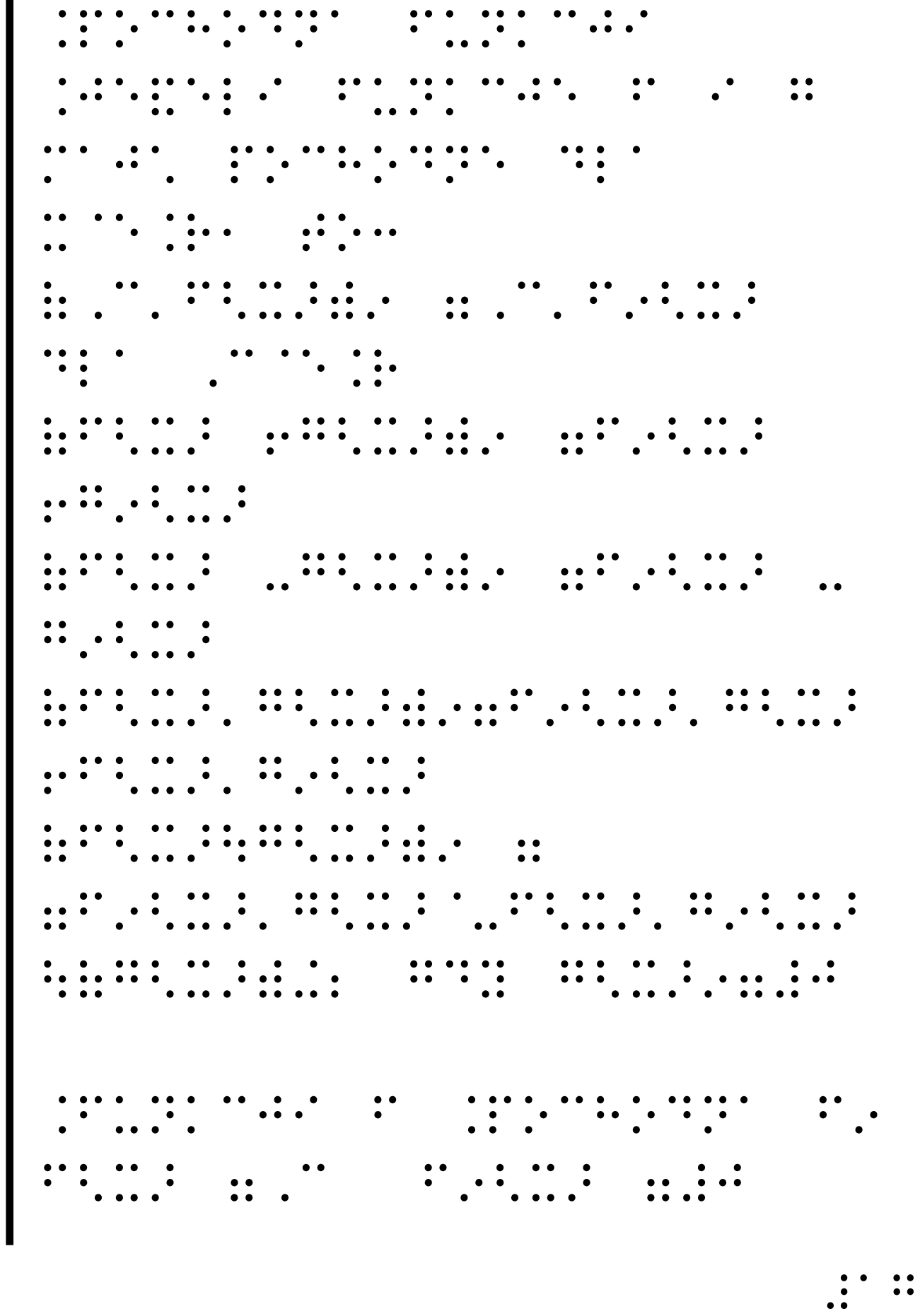


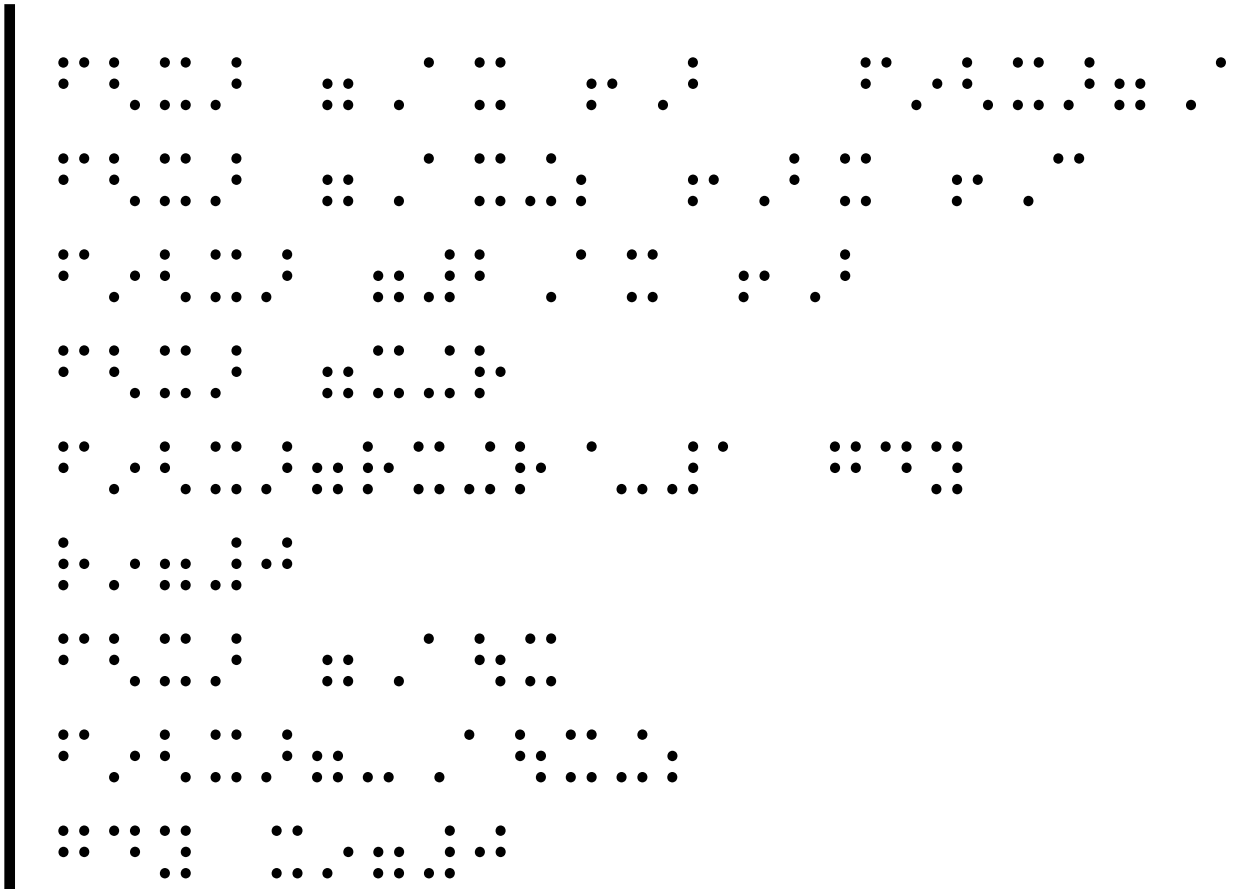




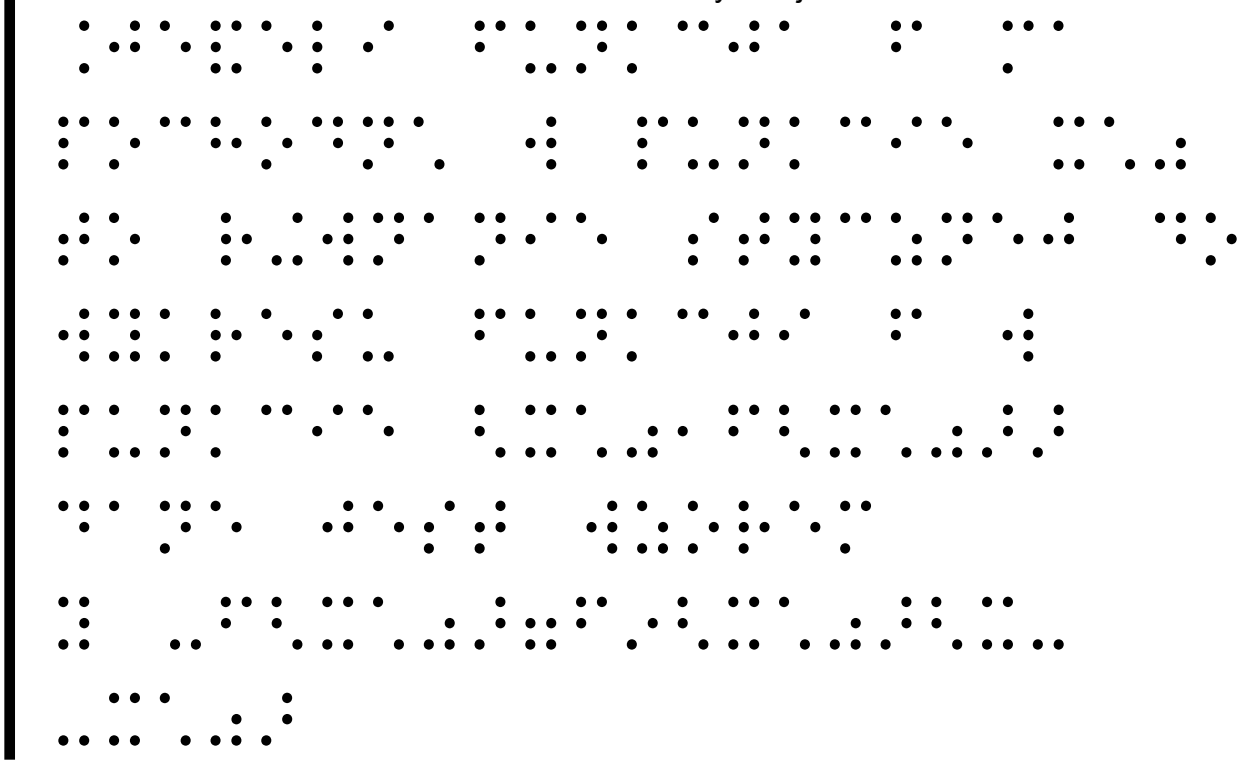


Pochodna funkcji

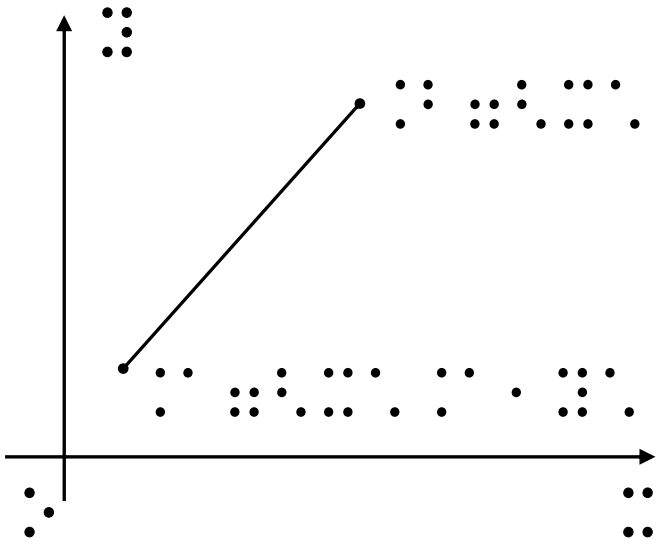




Równanie stycznej

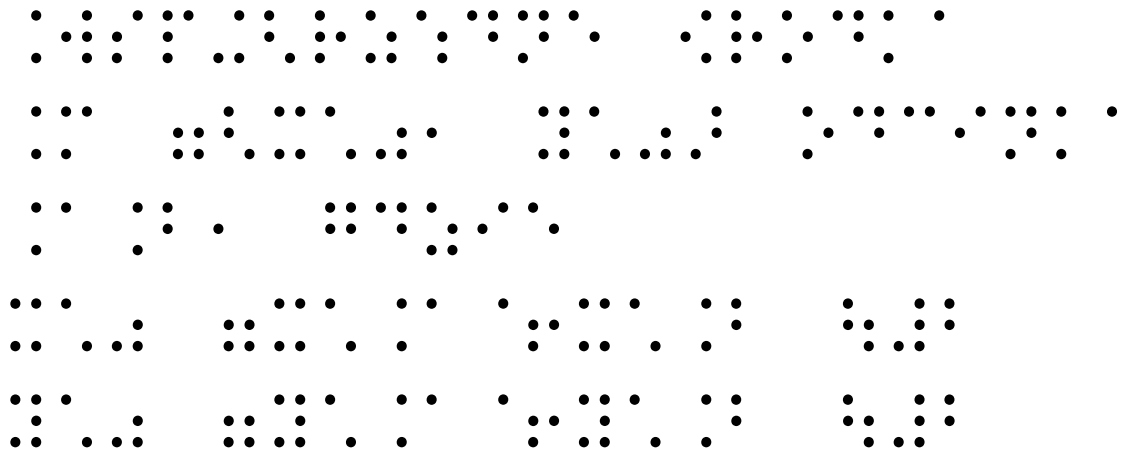


Geometria analityczna

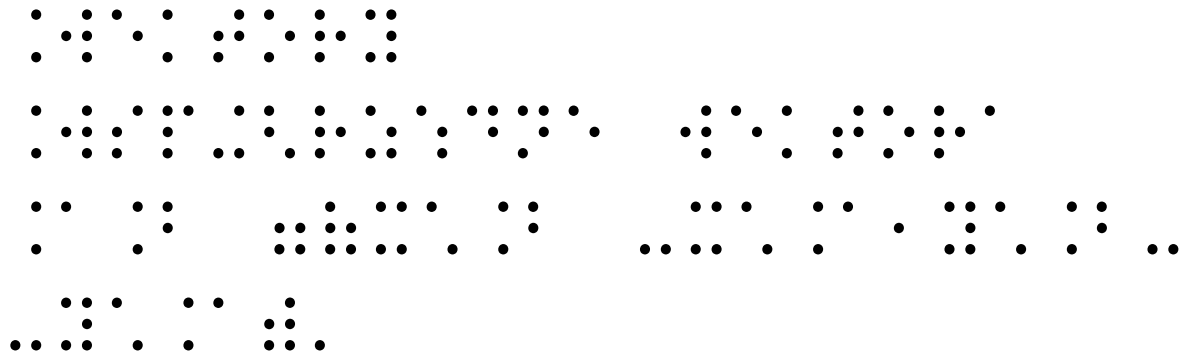


Odcinek

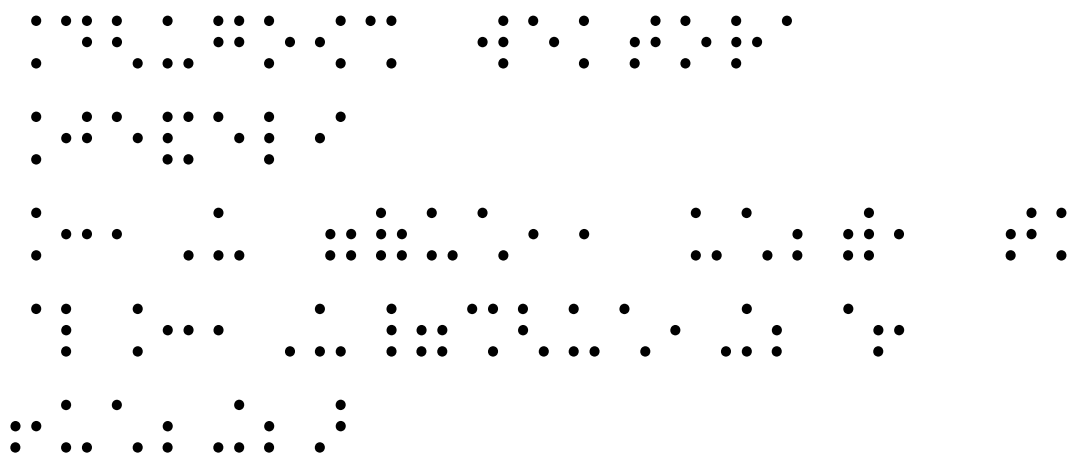
Środek odcinka

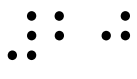


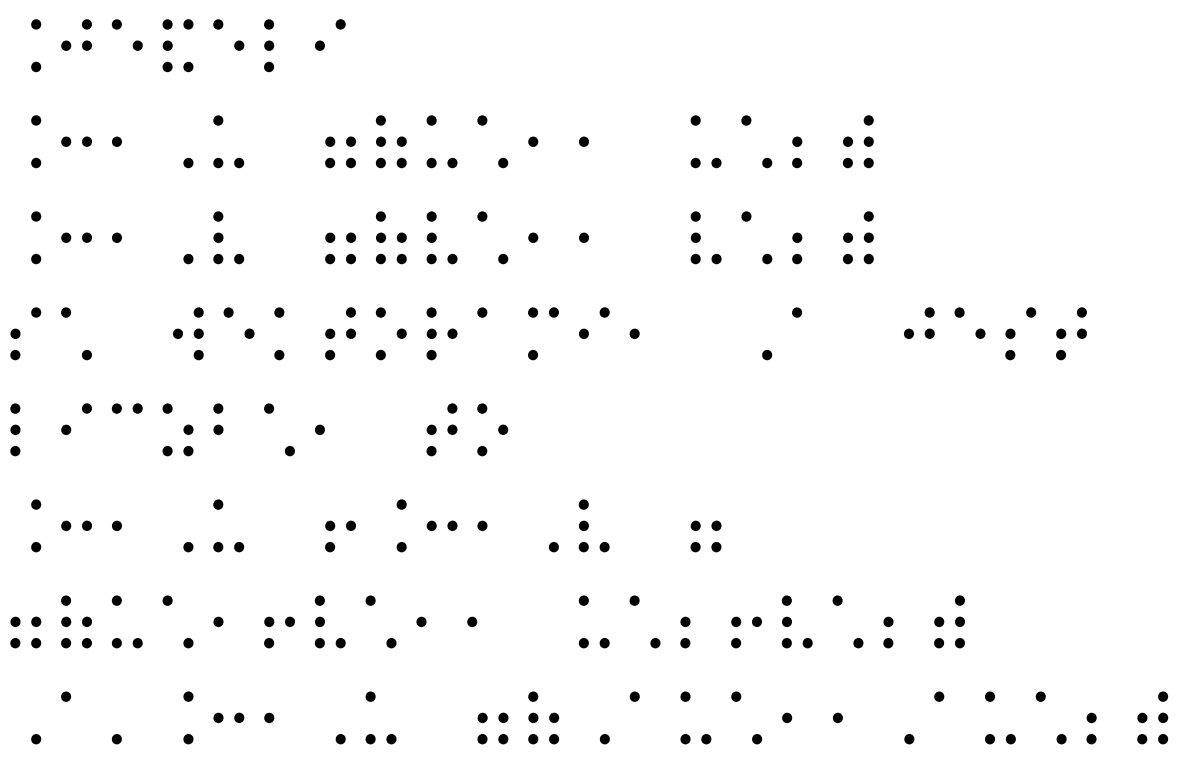
Wektory



Długość wektora







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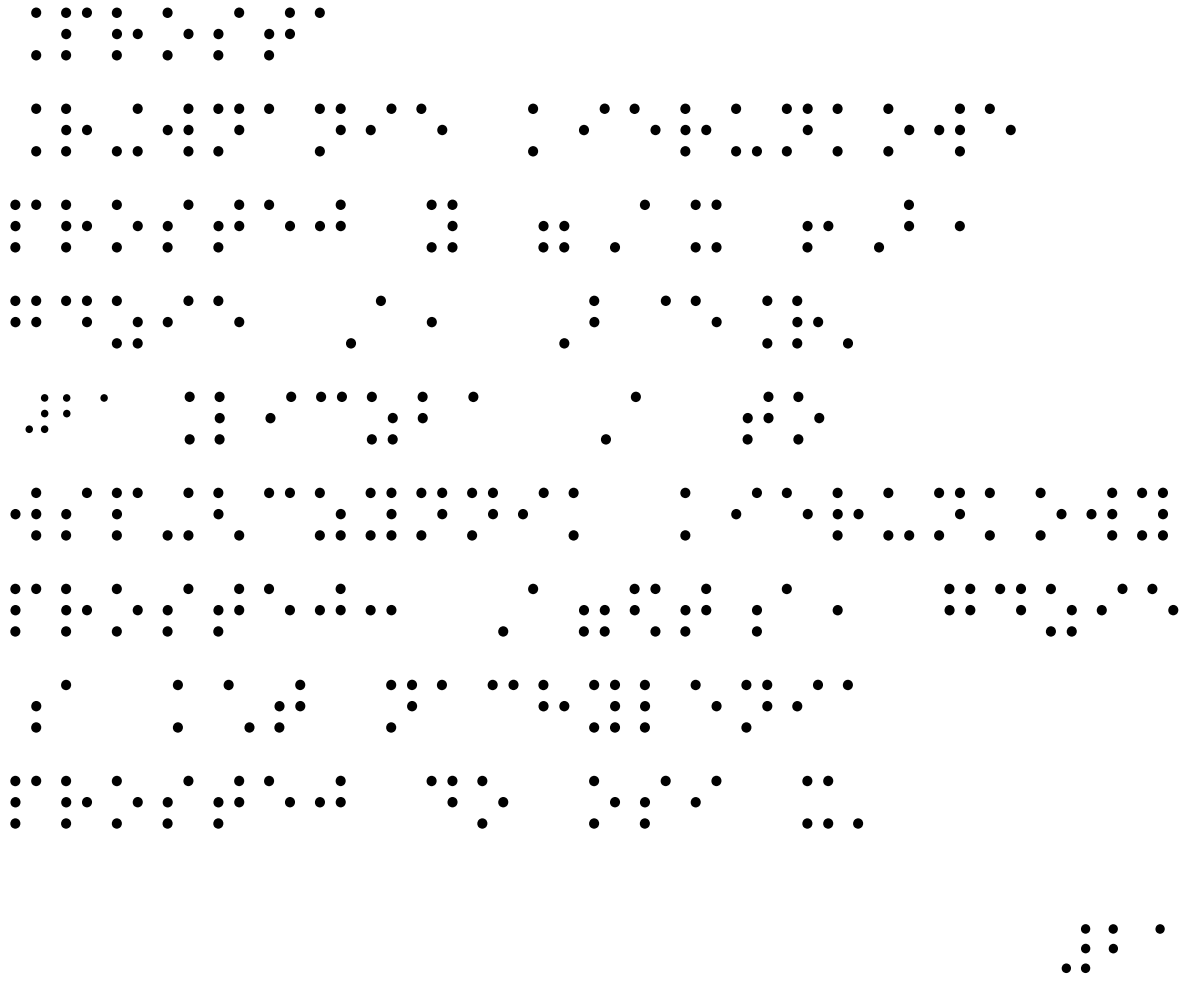

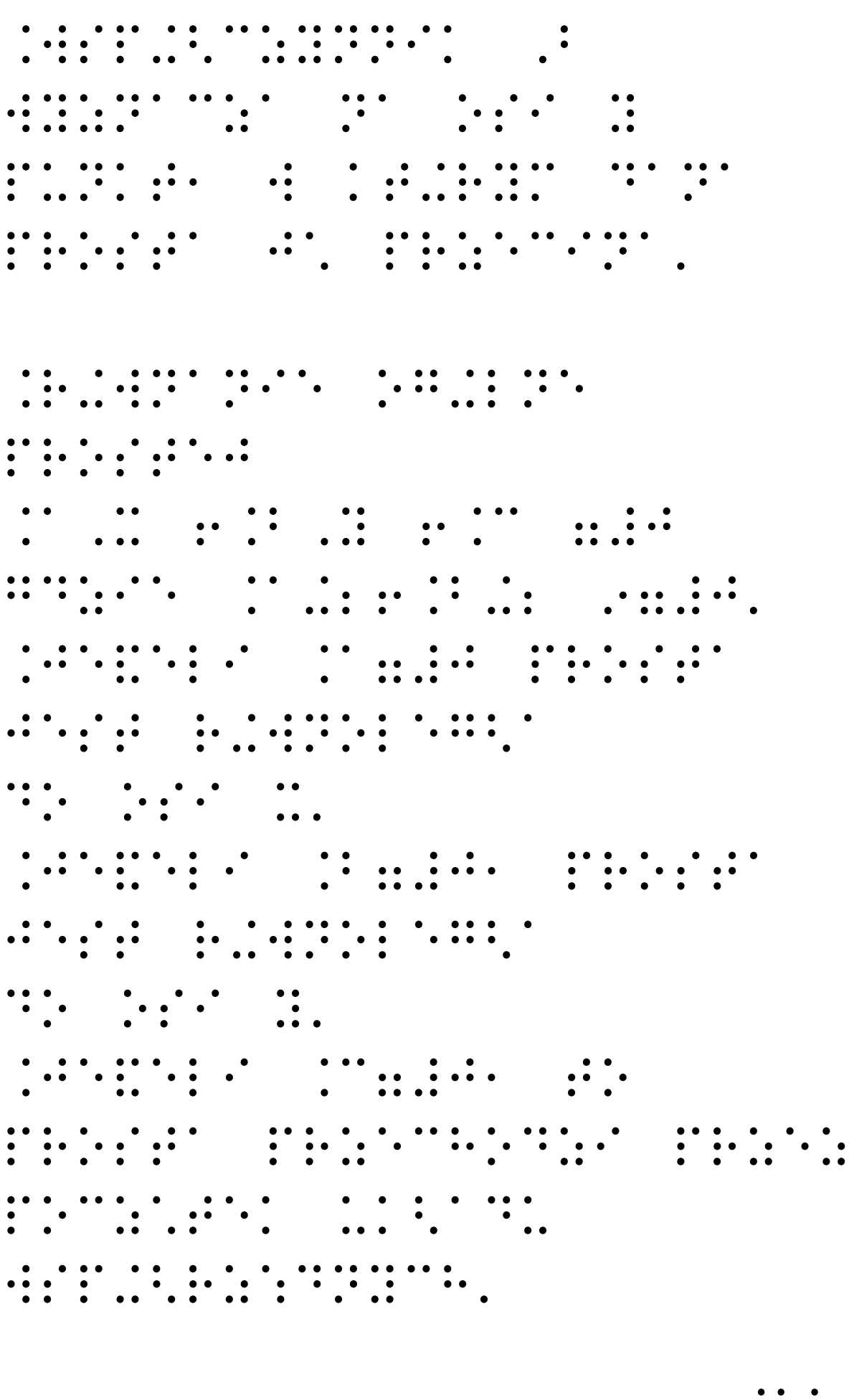

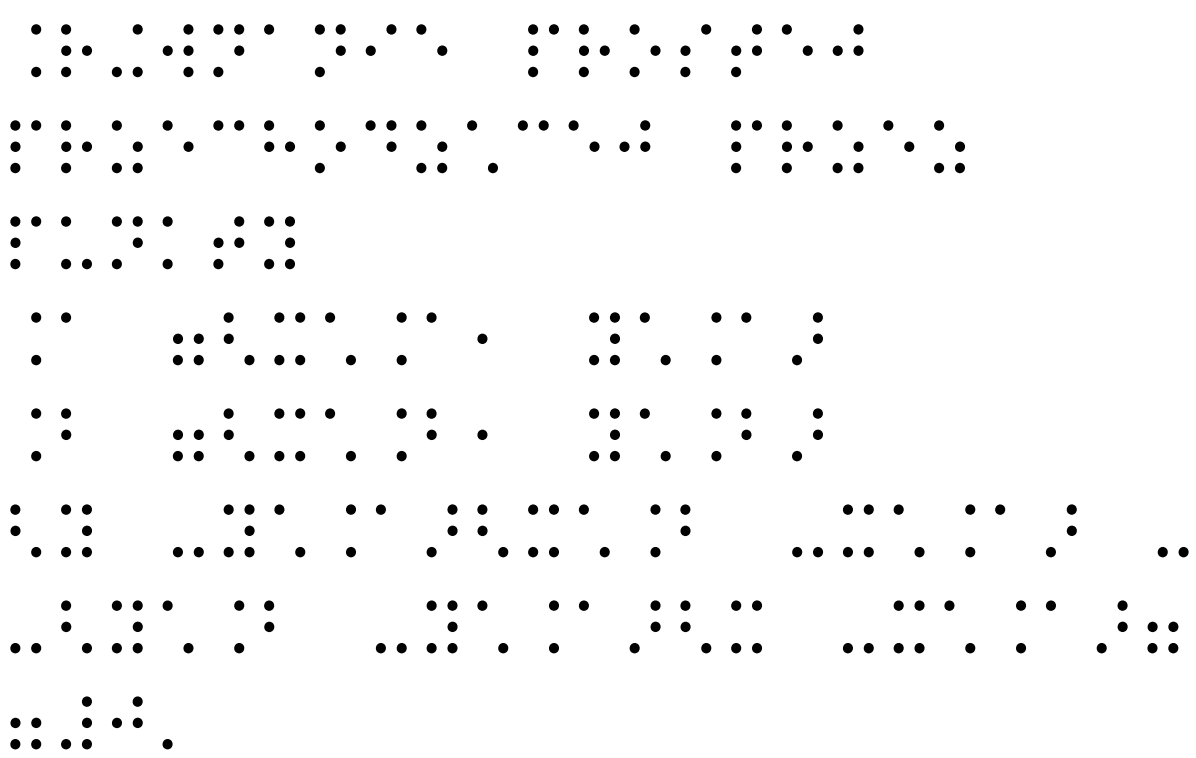

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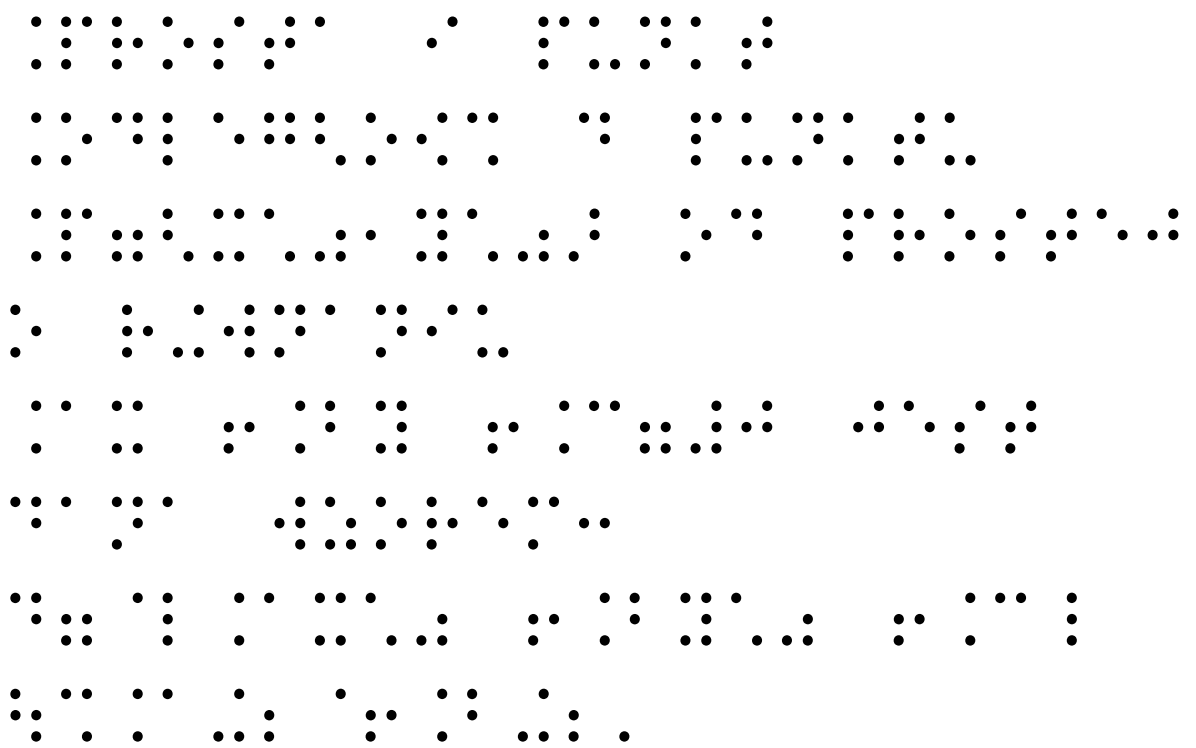
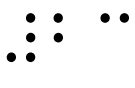
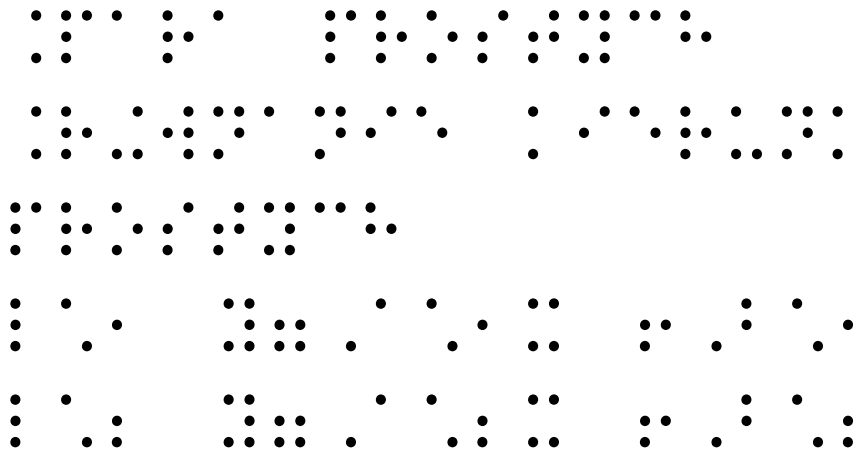
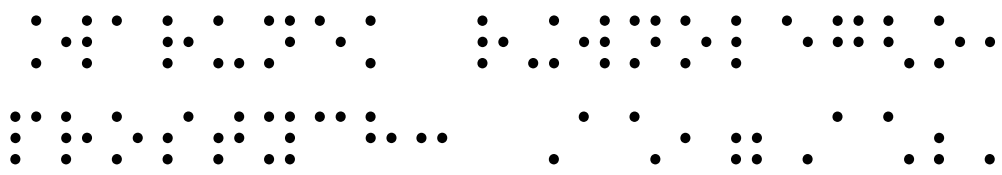




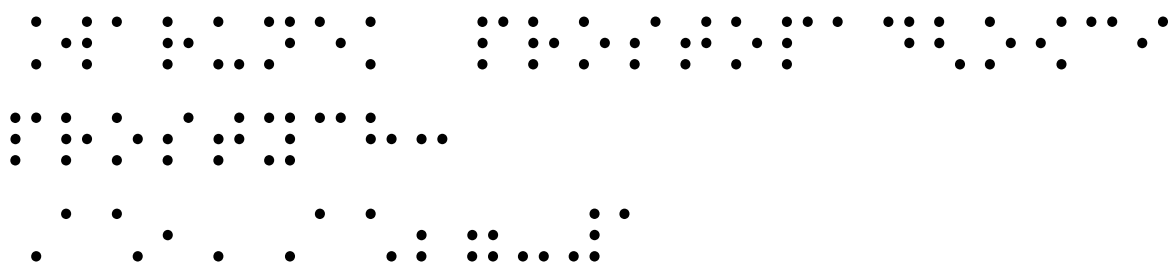
Para prostych



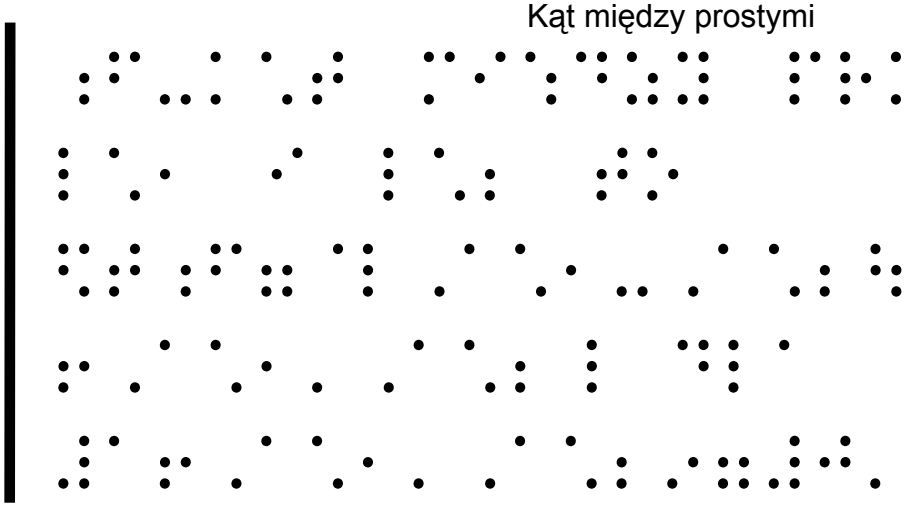
Warunek równoległości

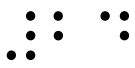


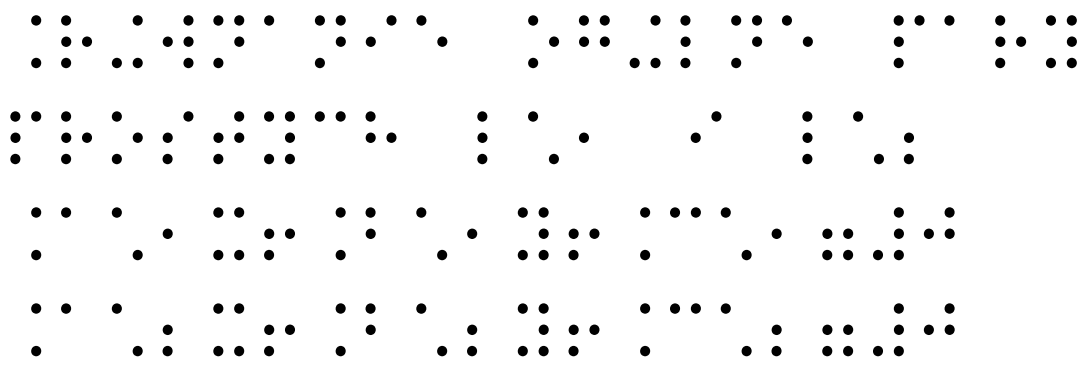
Warunek prostopadłości



Kąt między prostymi







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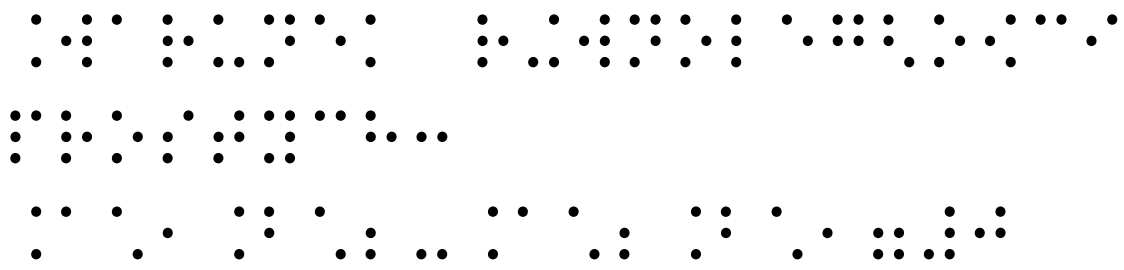

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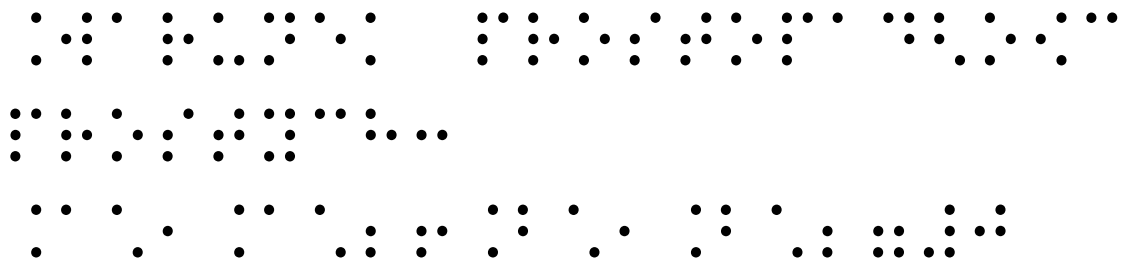

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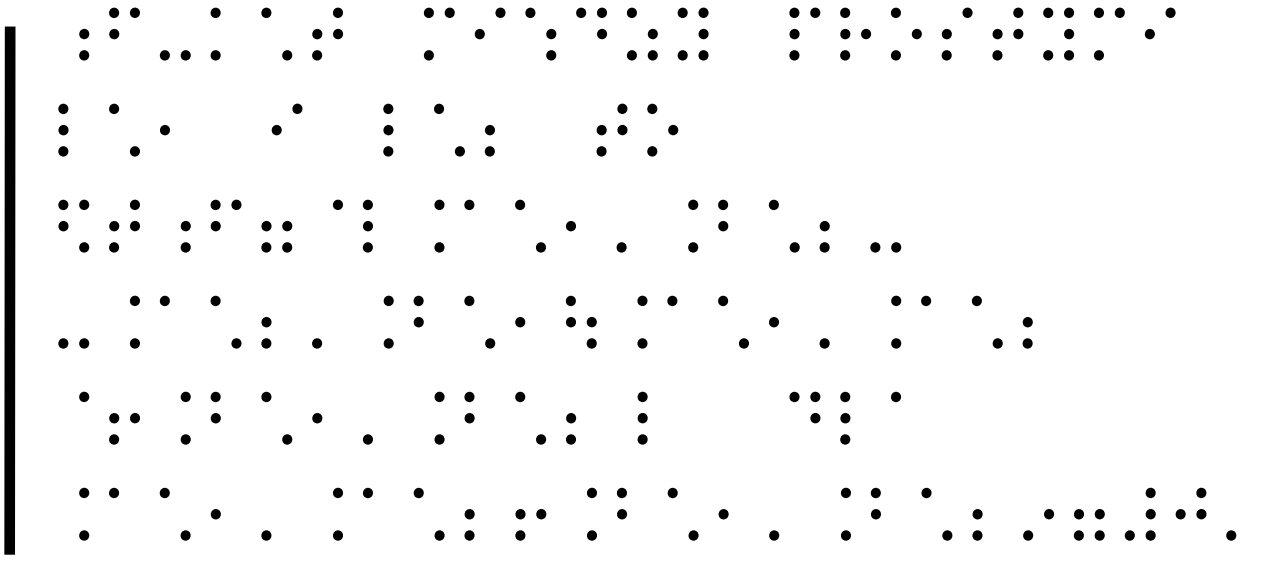
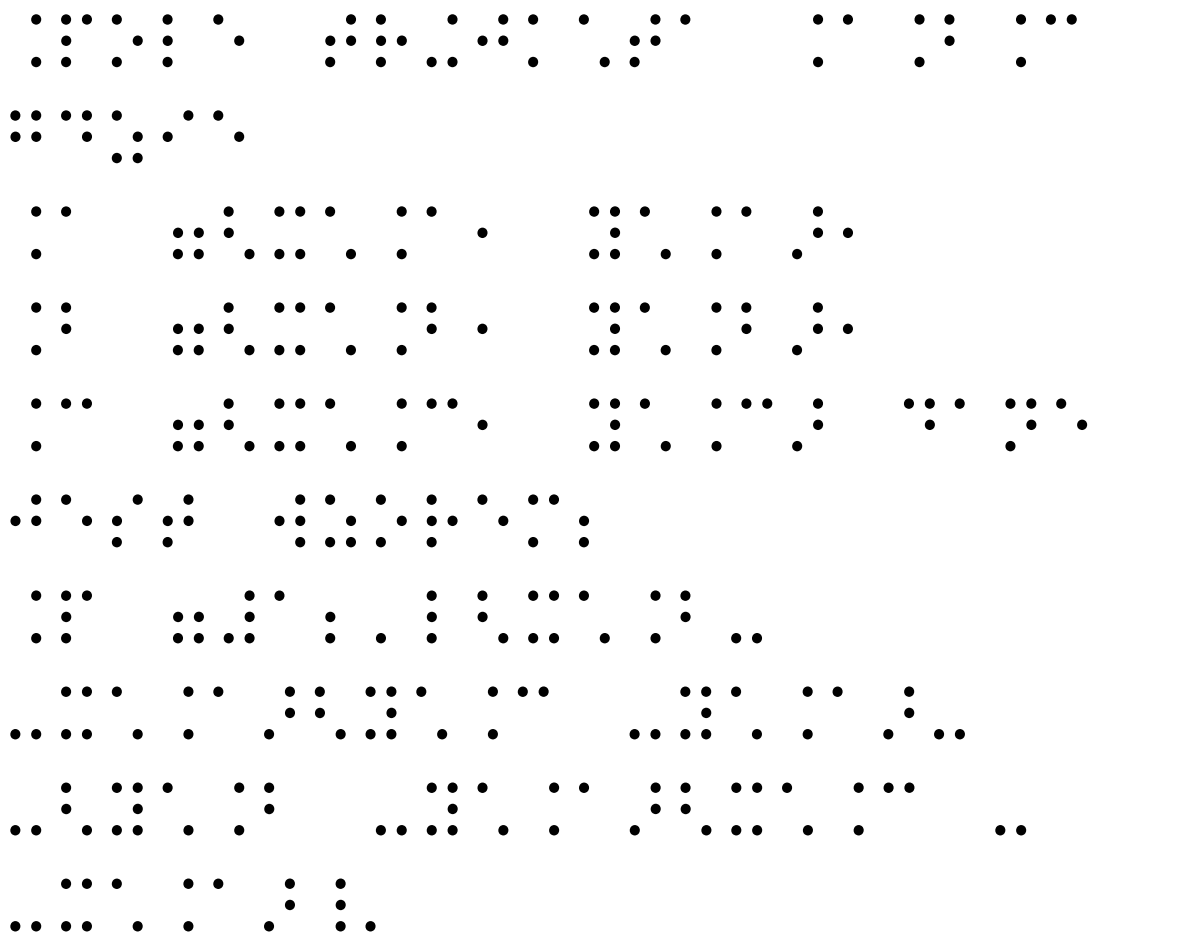
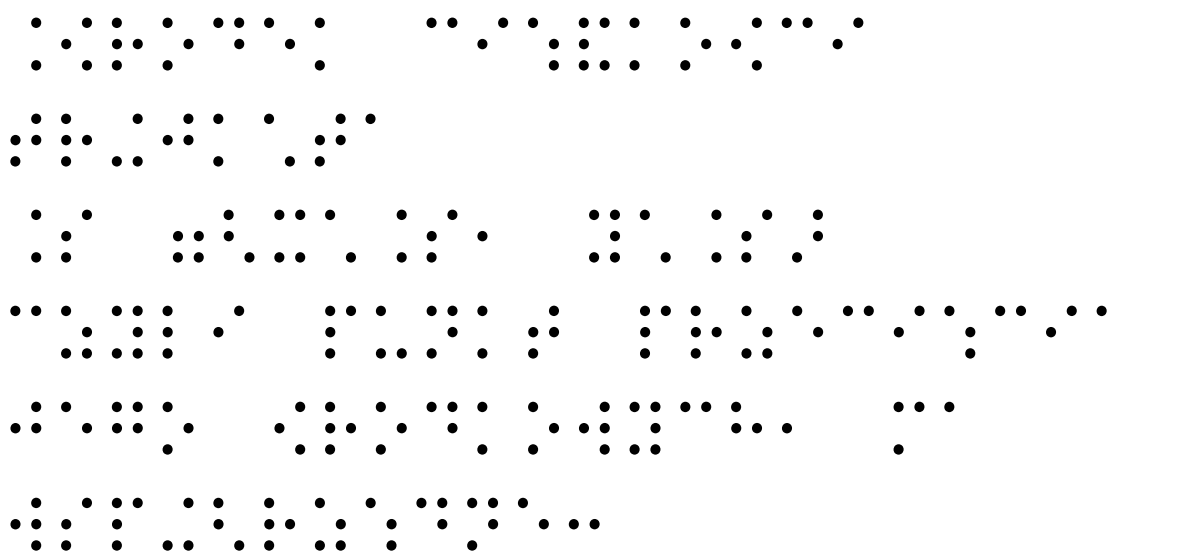
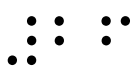


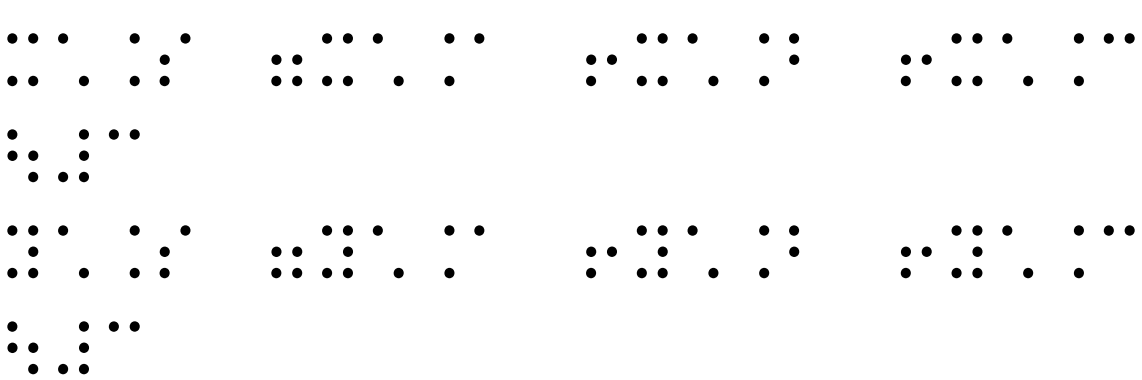
Trójkąt



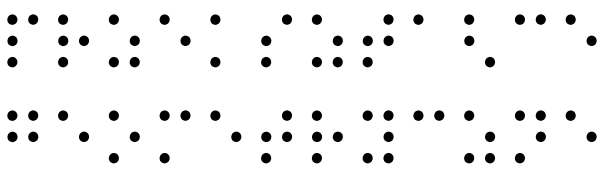
Środek ciężkości trójkąta



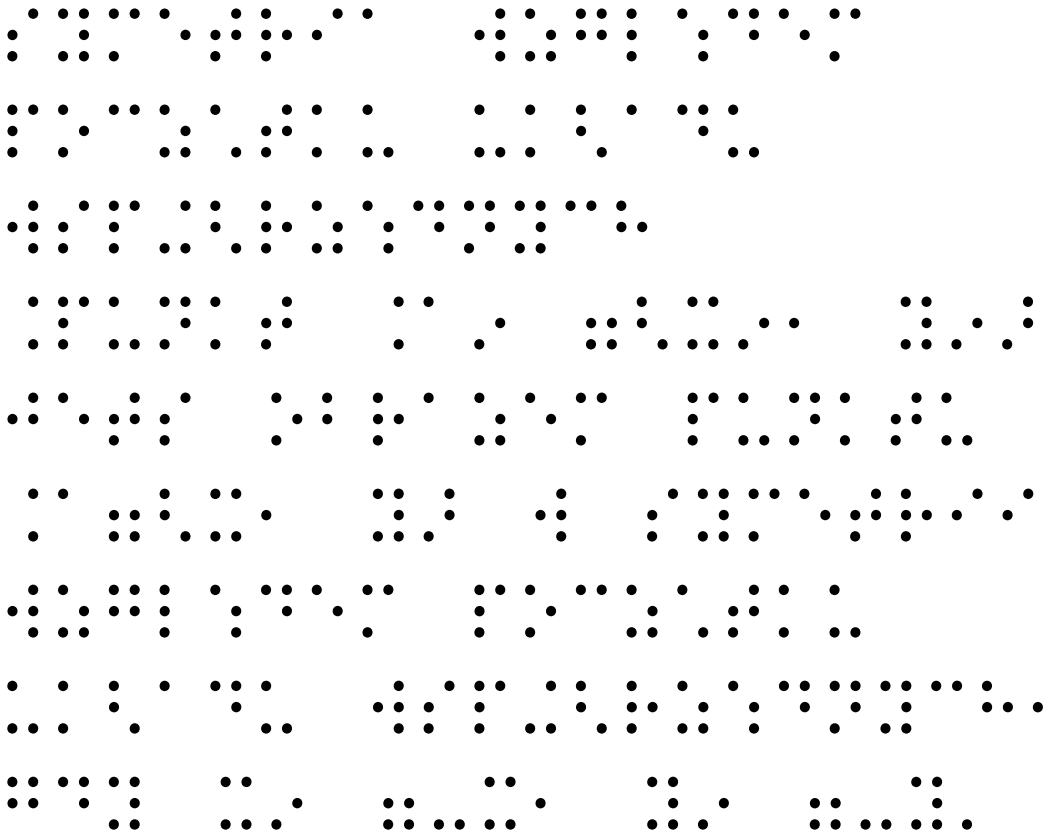




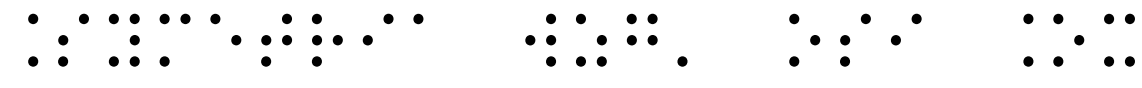
Przekształcenia geometryczne

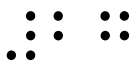


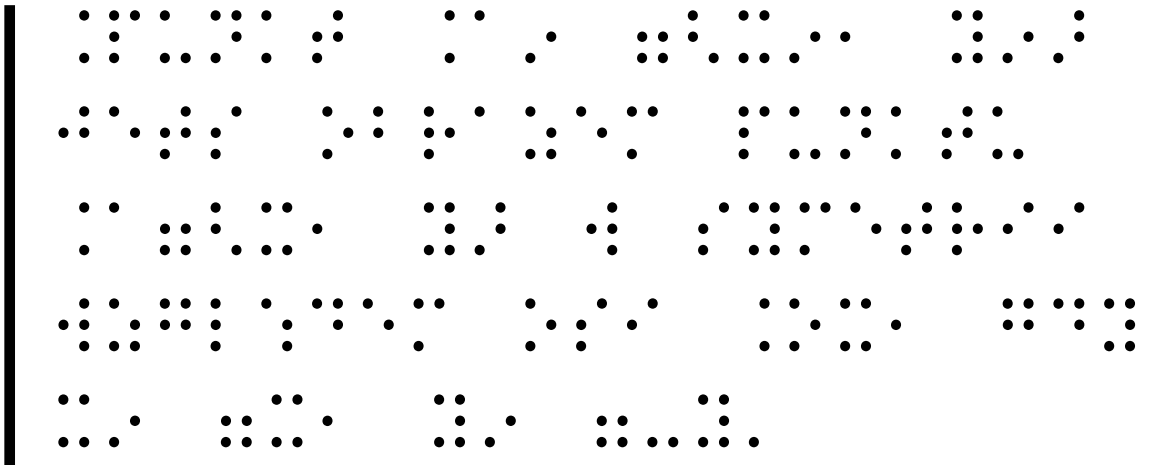
Symetria względem początku układu współrzędnych



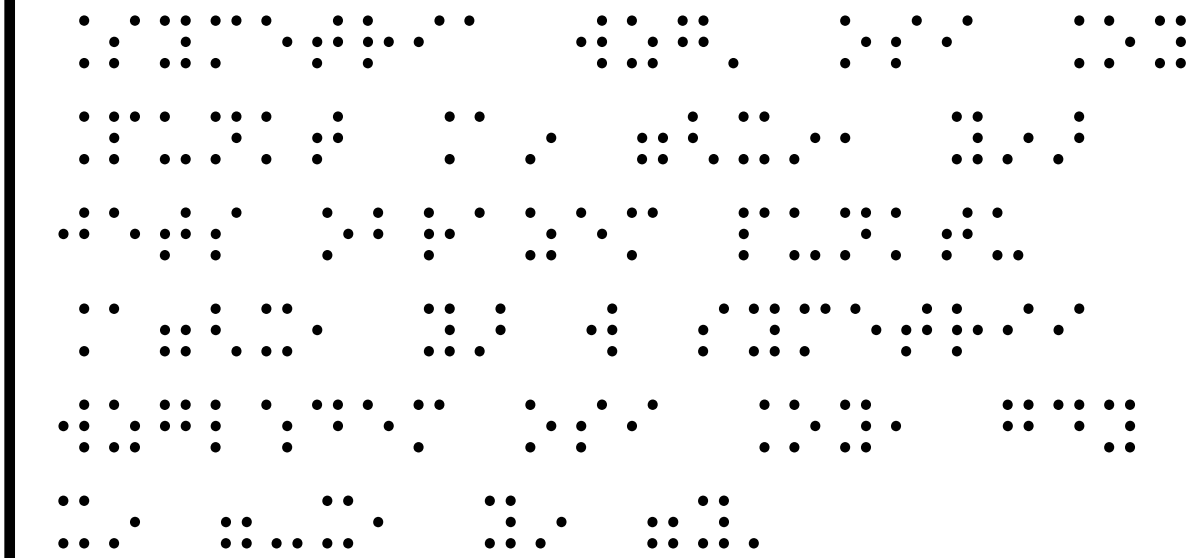
Symetria względem osi OX



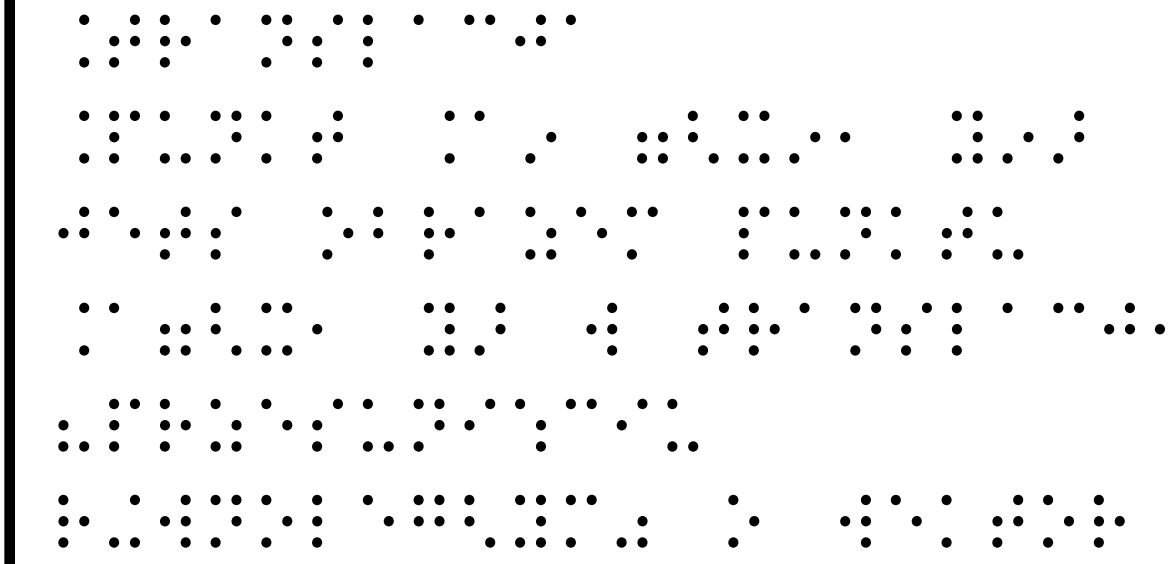


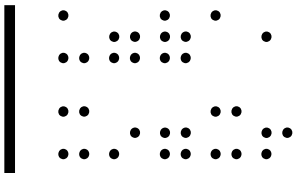


Symetria względem osi OY

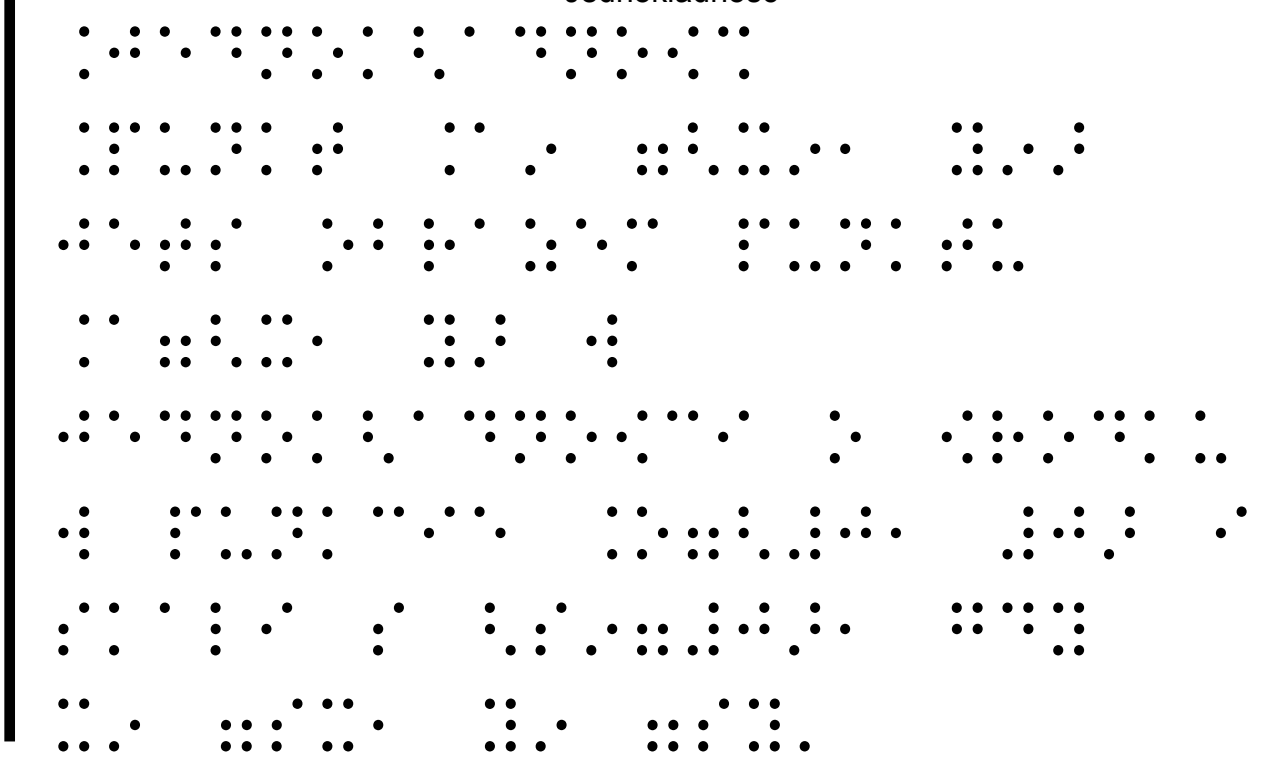


Translacja (przesunięcie równoległe)

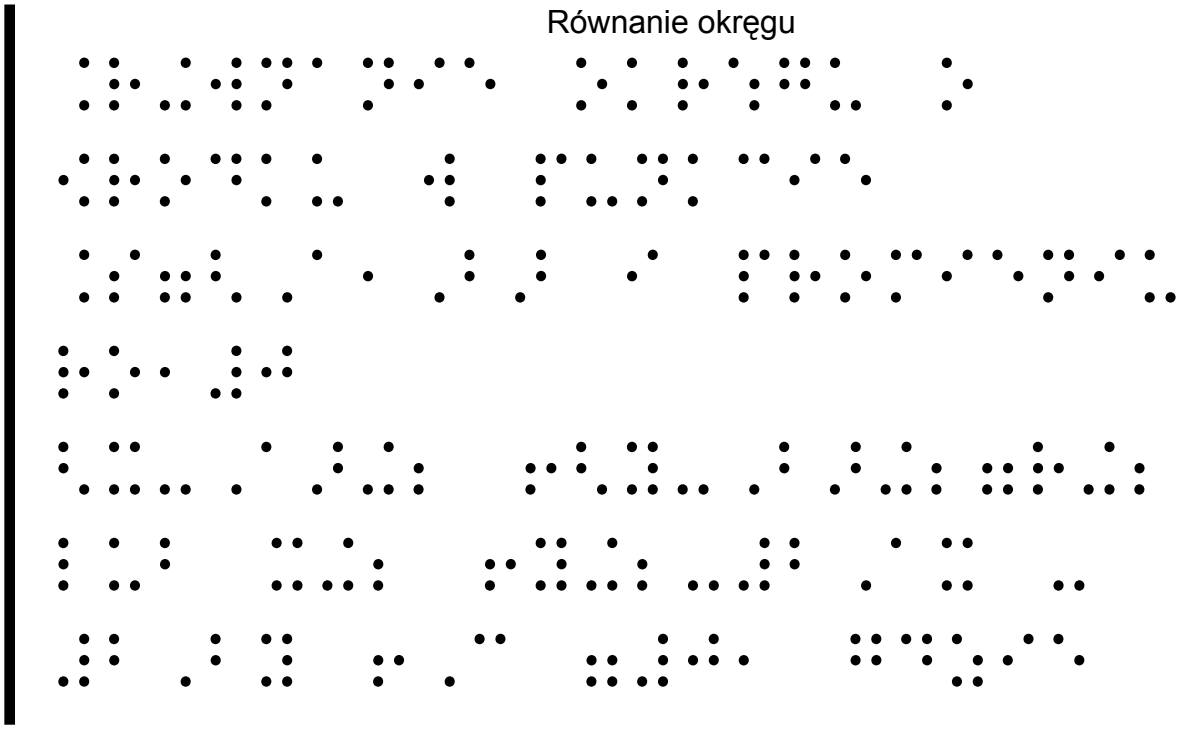


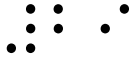


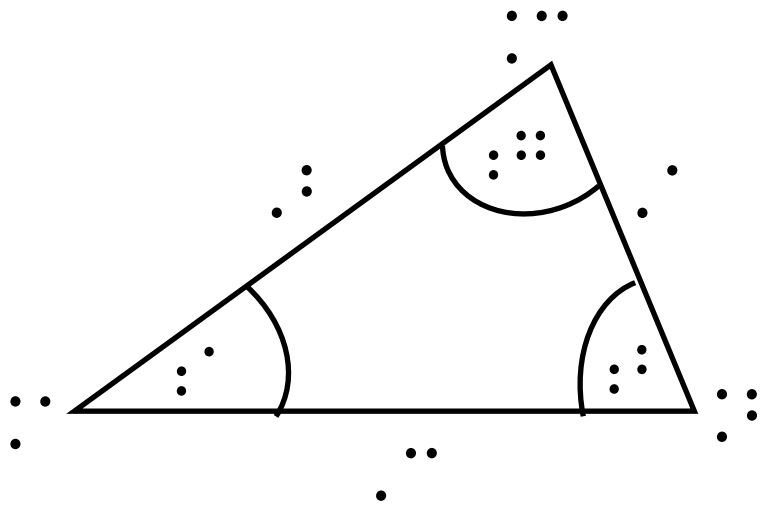
Jednokładność

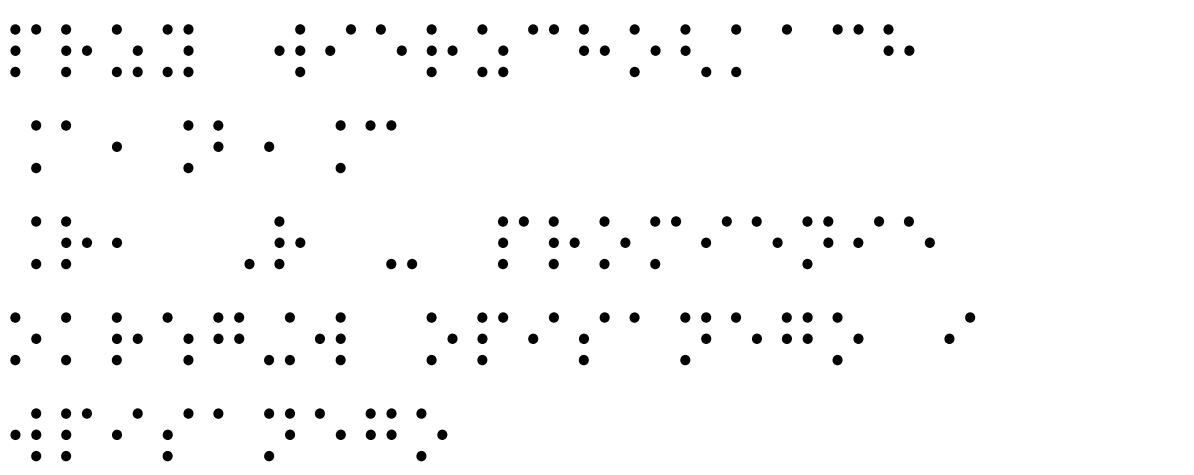


Równanie okręgu

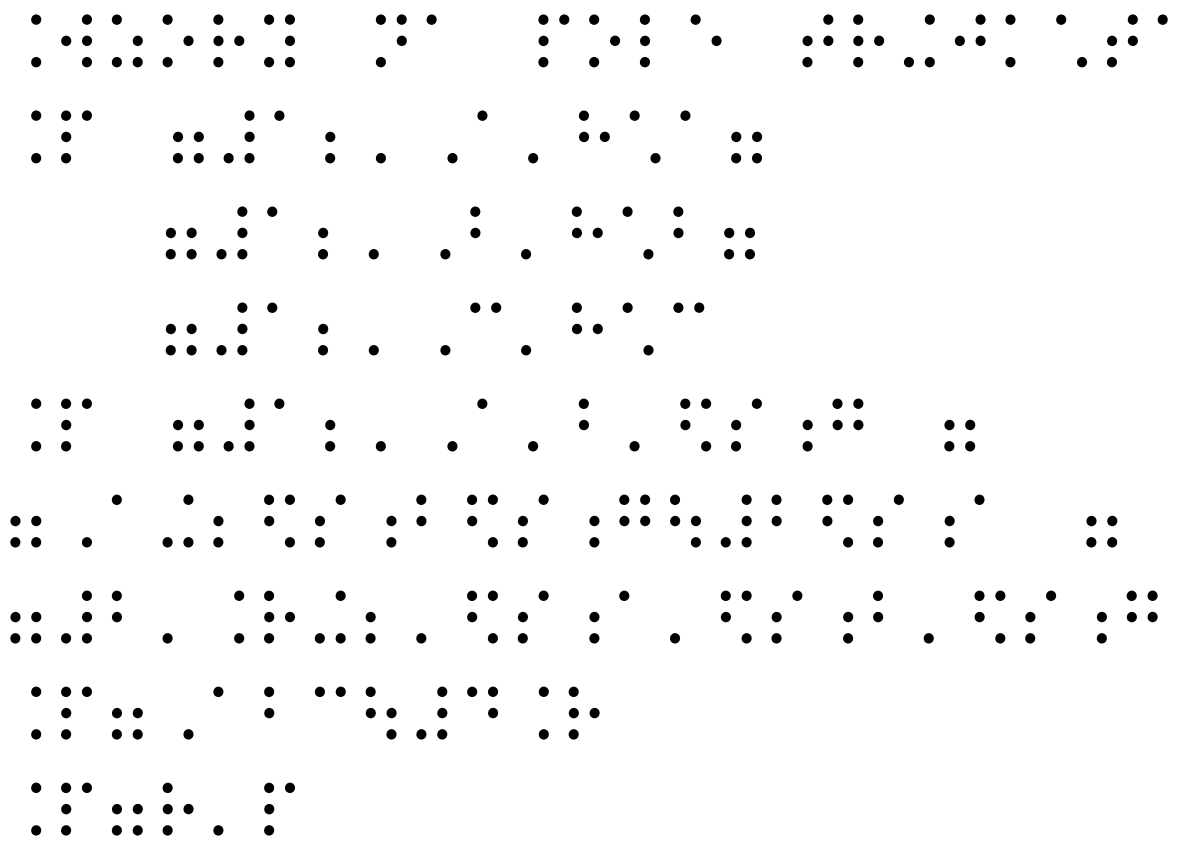




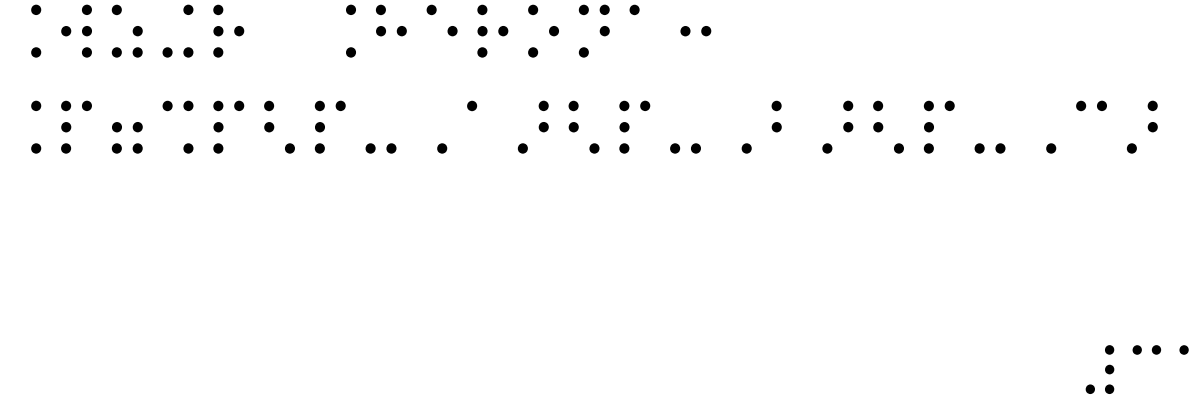




Wzory na pole trójkąta



Wzór Herona

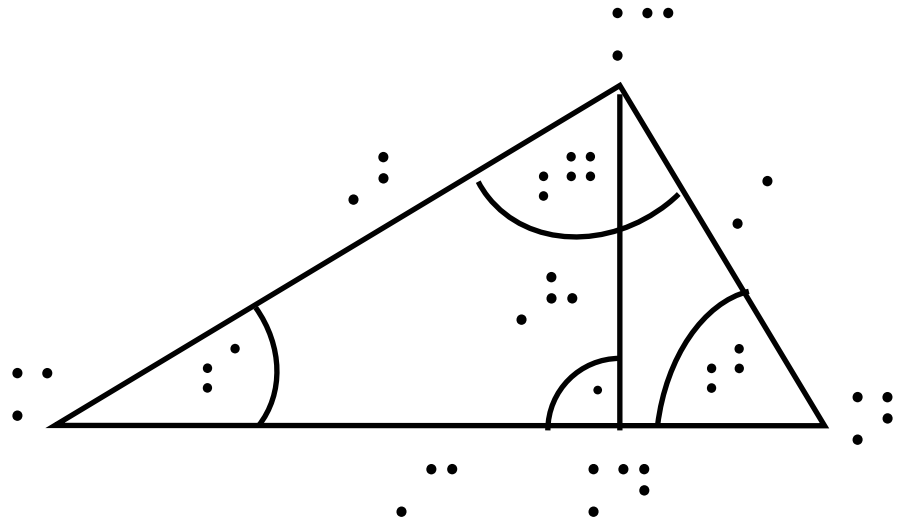


Twierdzenie sinusów

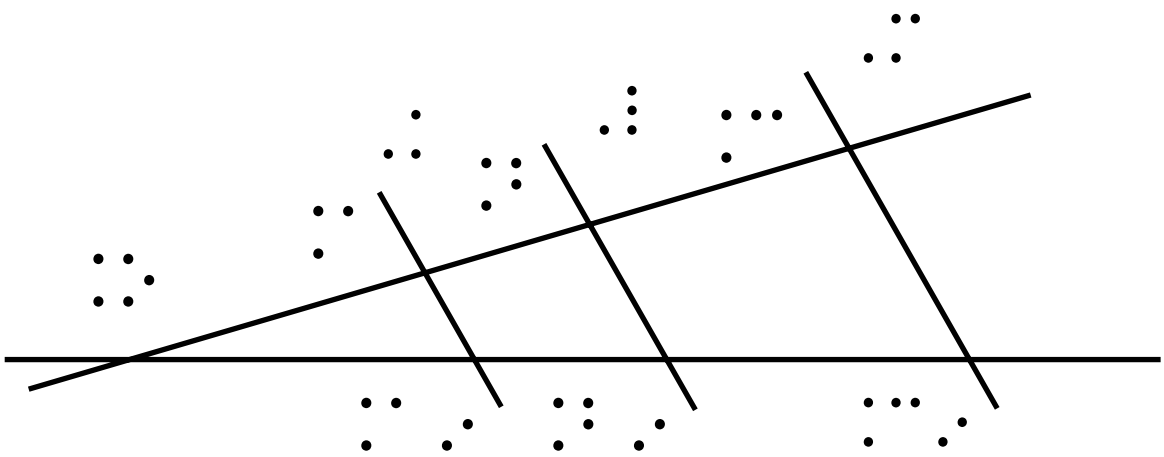
Twierdzenie cosinusów

Twierdzenie Pitagorasa

Związki miarowe w trójkącie prostokątnym

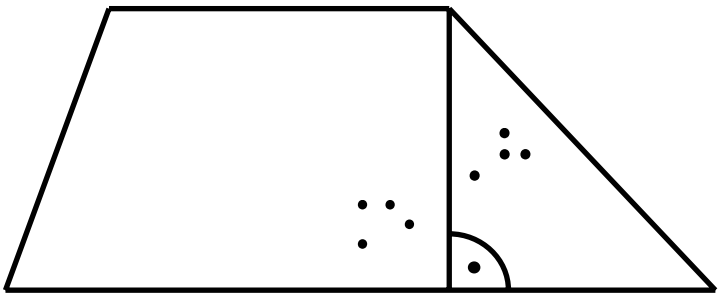


Twierdzenie Talesa

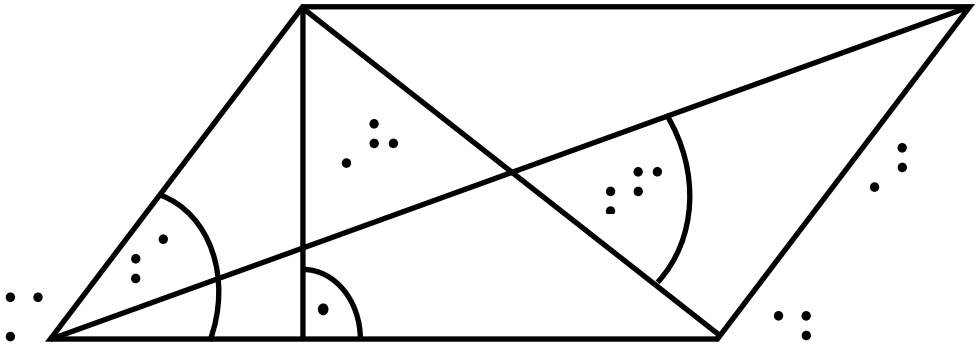


Czworokąty

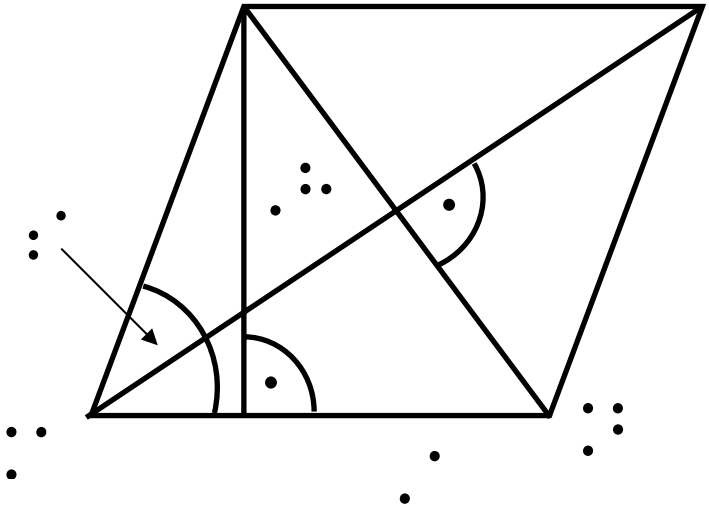
Trapez



Równoległobok



Romb



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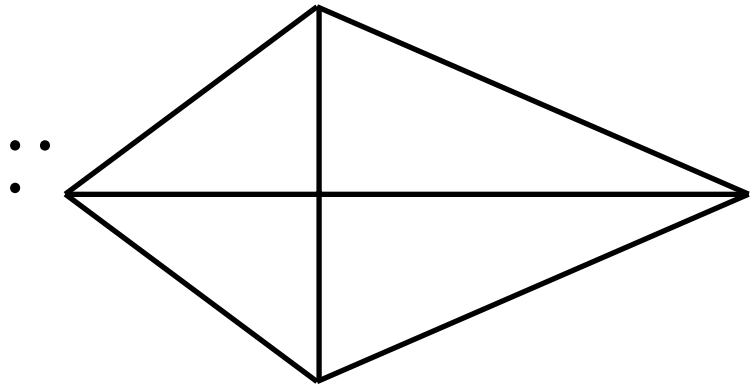
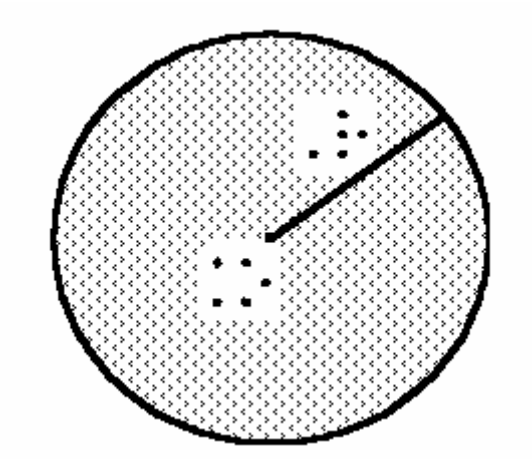
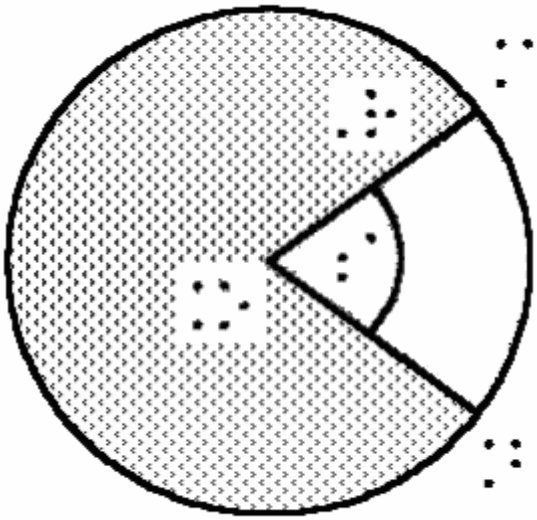


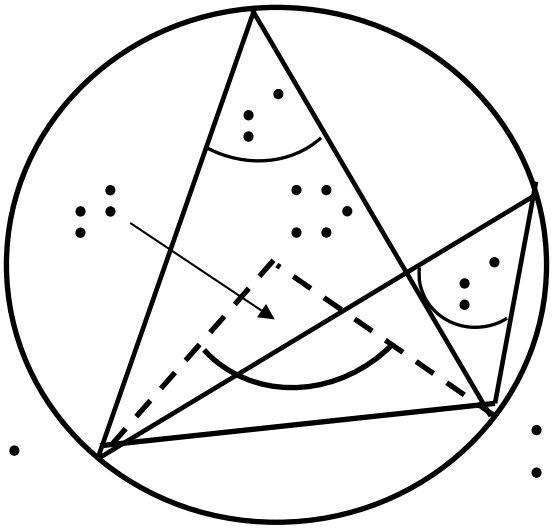
Koło



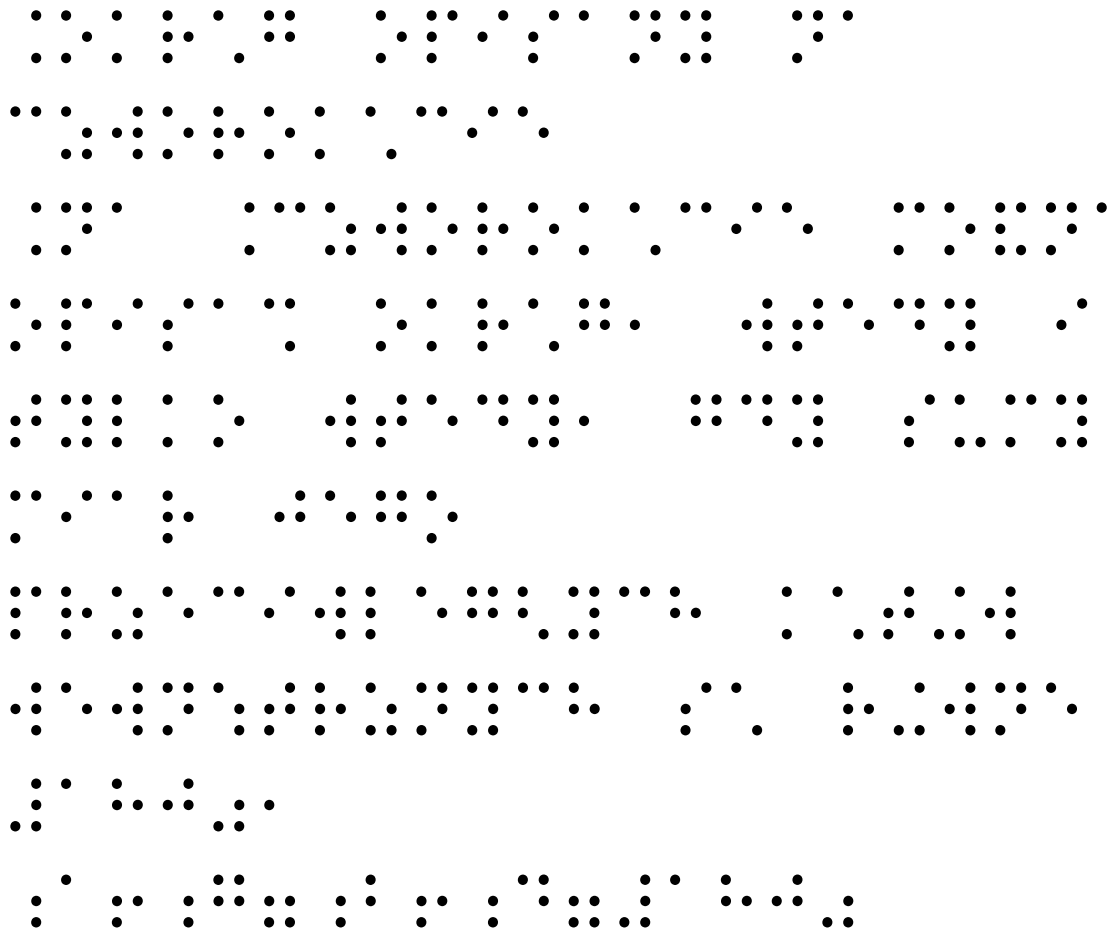
Wycinek koła



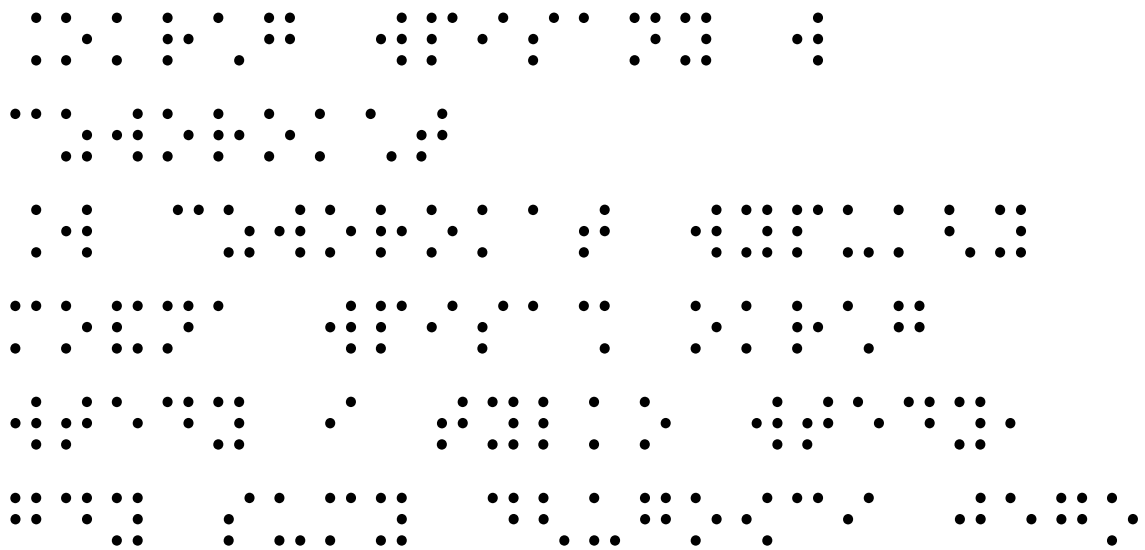
Kąty w okręgu

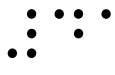


Okrąg opisany na czworokącie



Okrąg wpisany w czworokąt

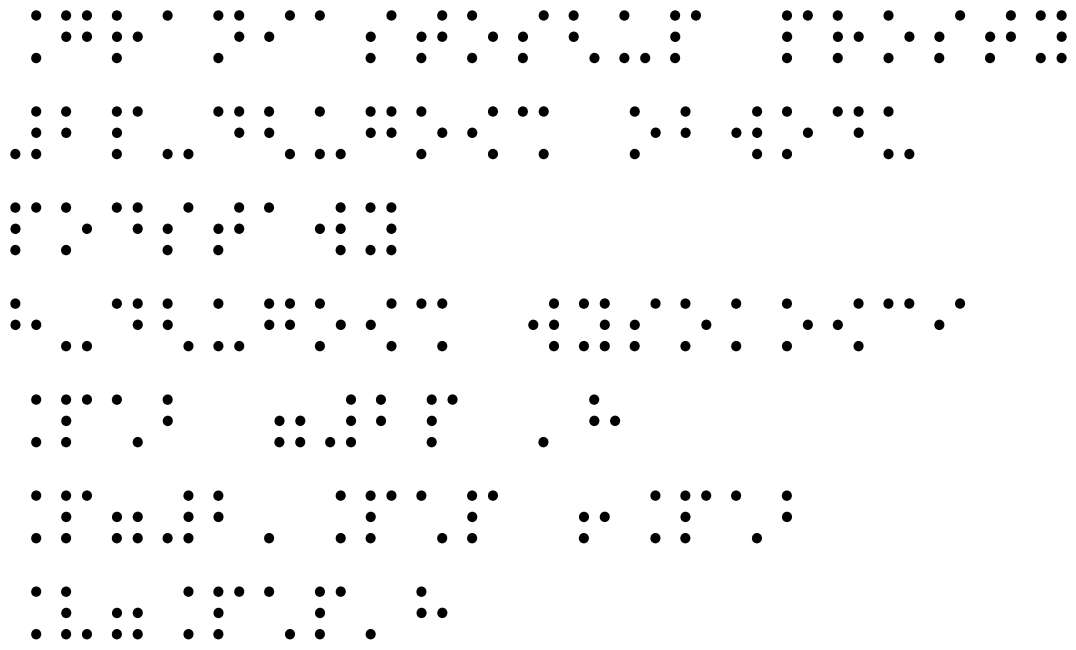




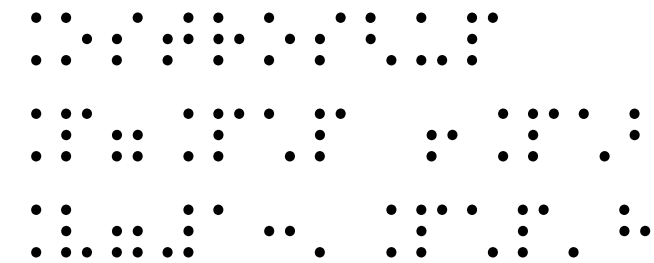
Stereometria

Prostopadłościan

Graniastosłup prosty



Ostrosłup



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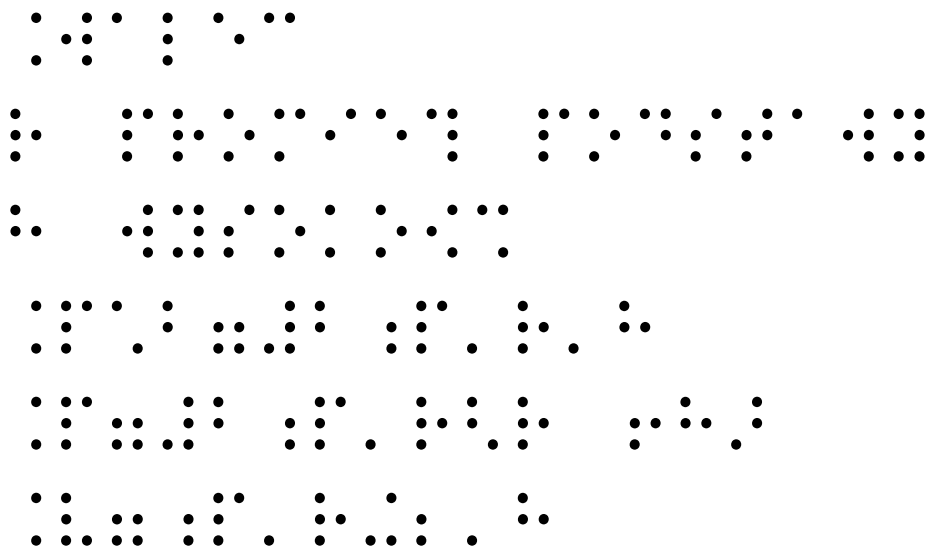
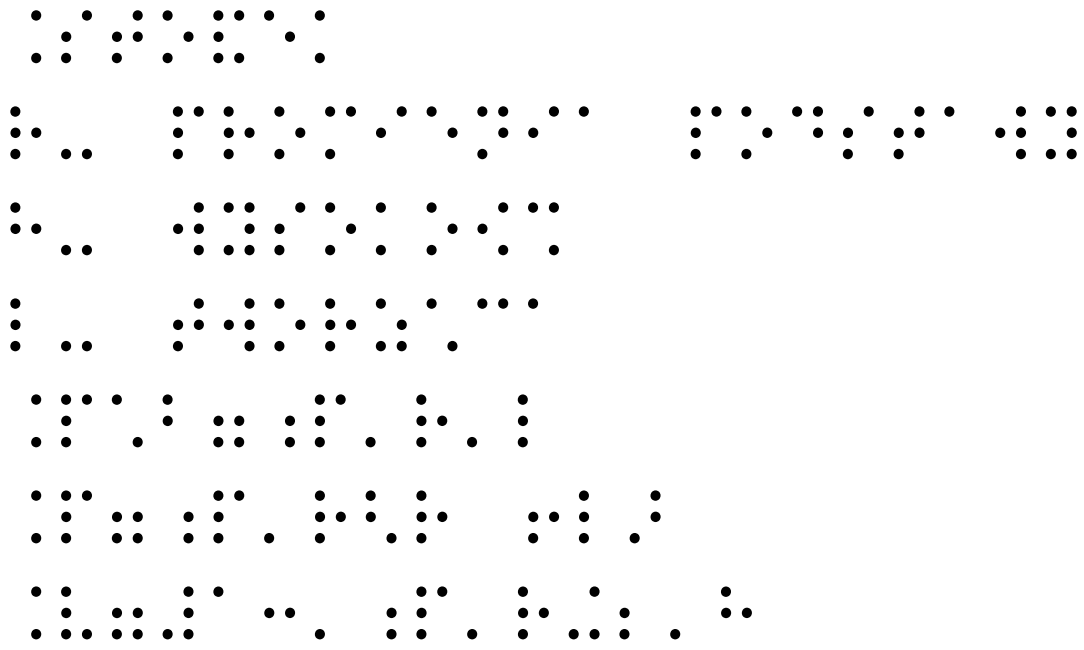
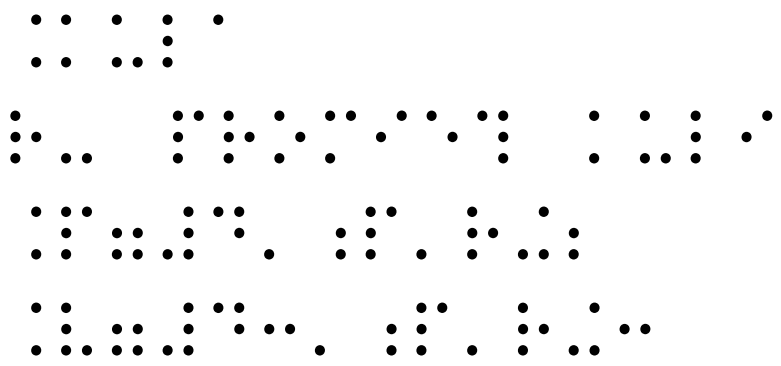
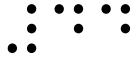


Stożek

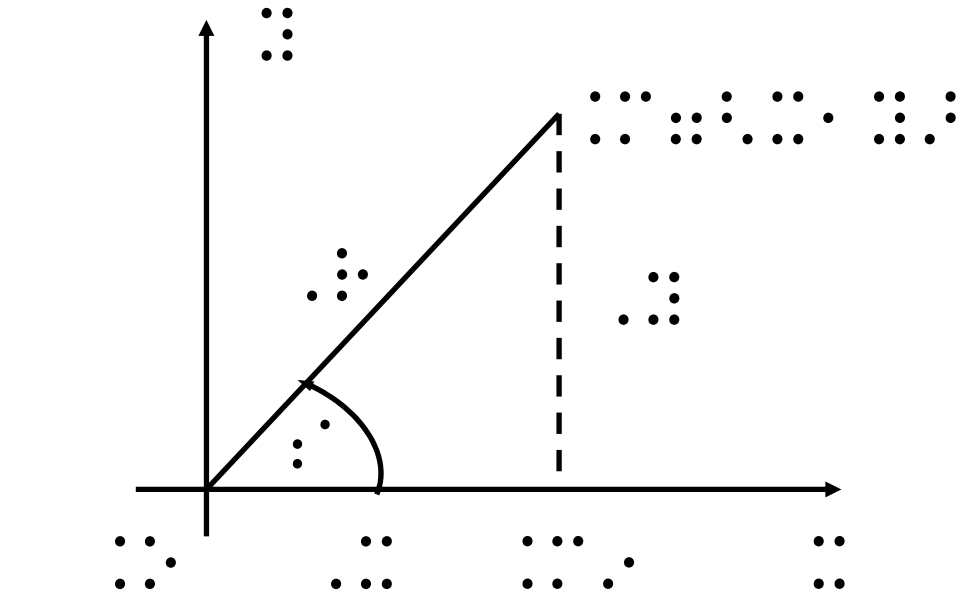


Kula

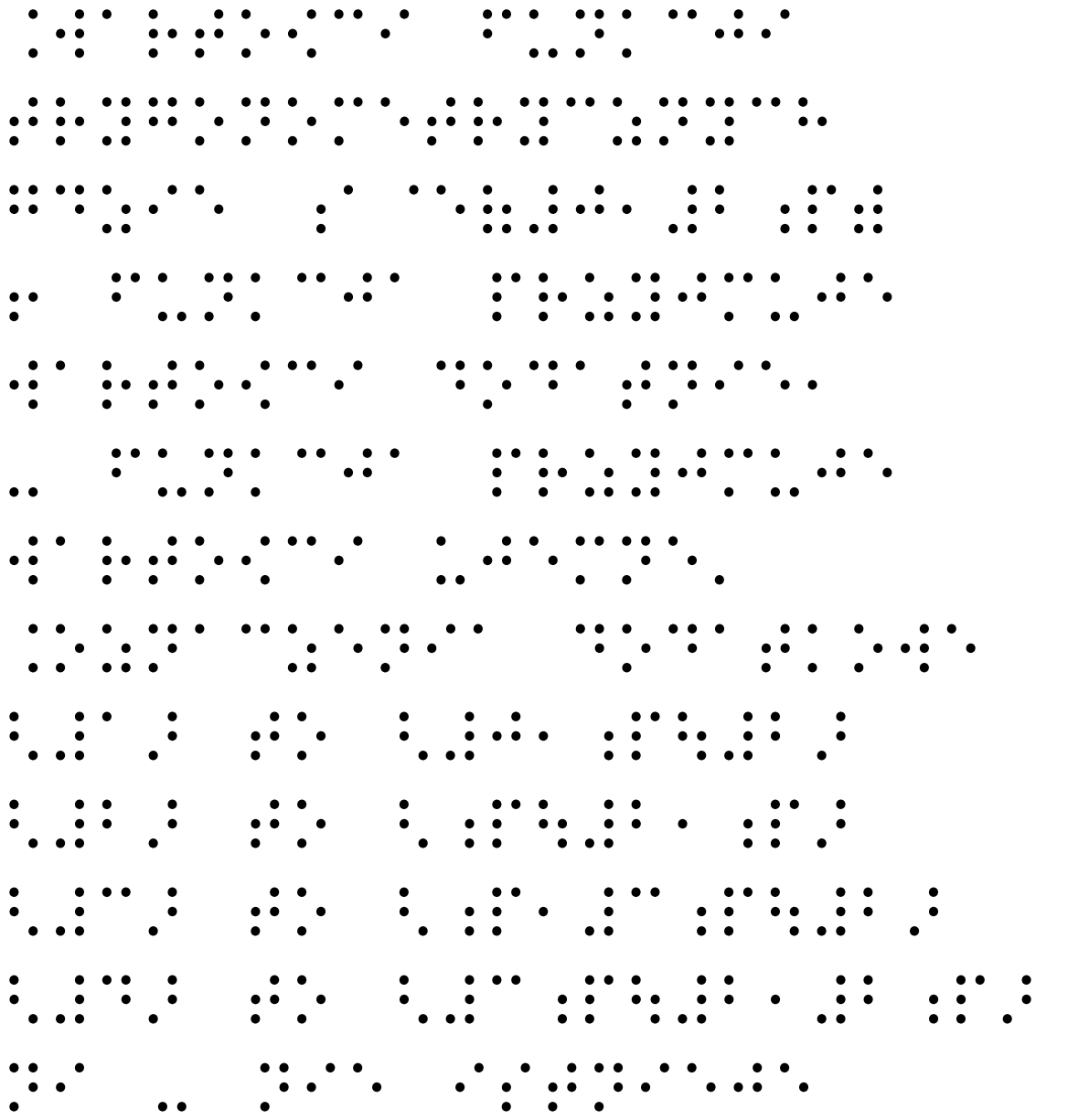


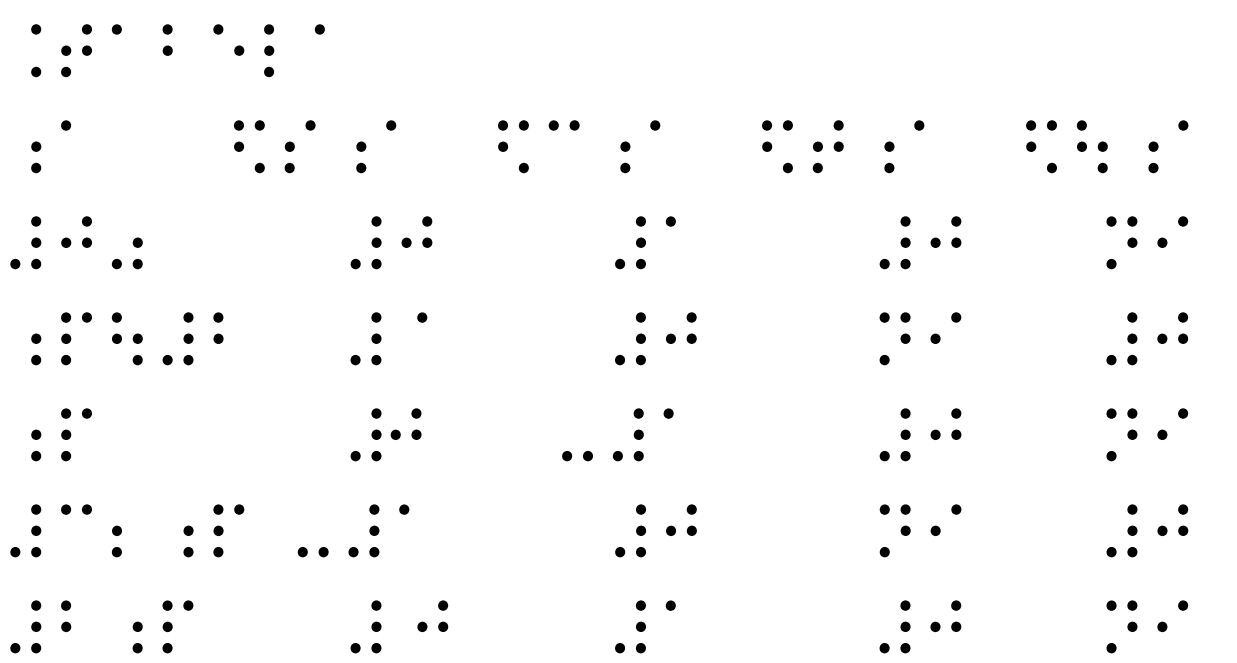


Trygonometria
Definicje funkcji trygonometrycznych

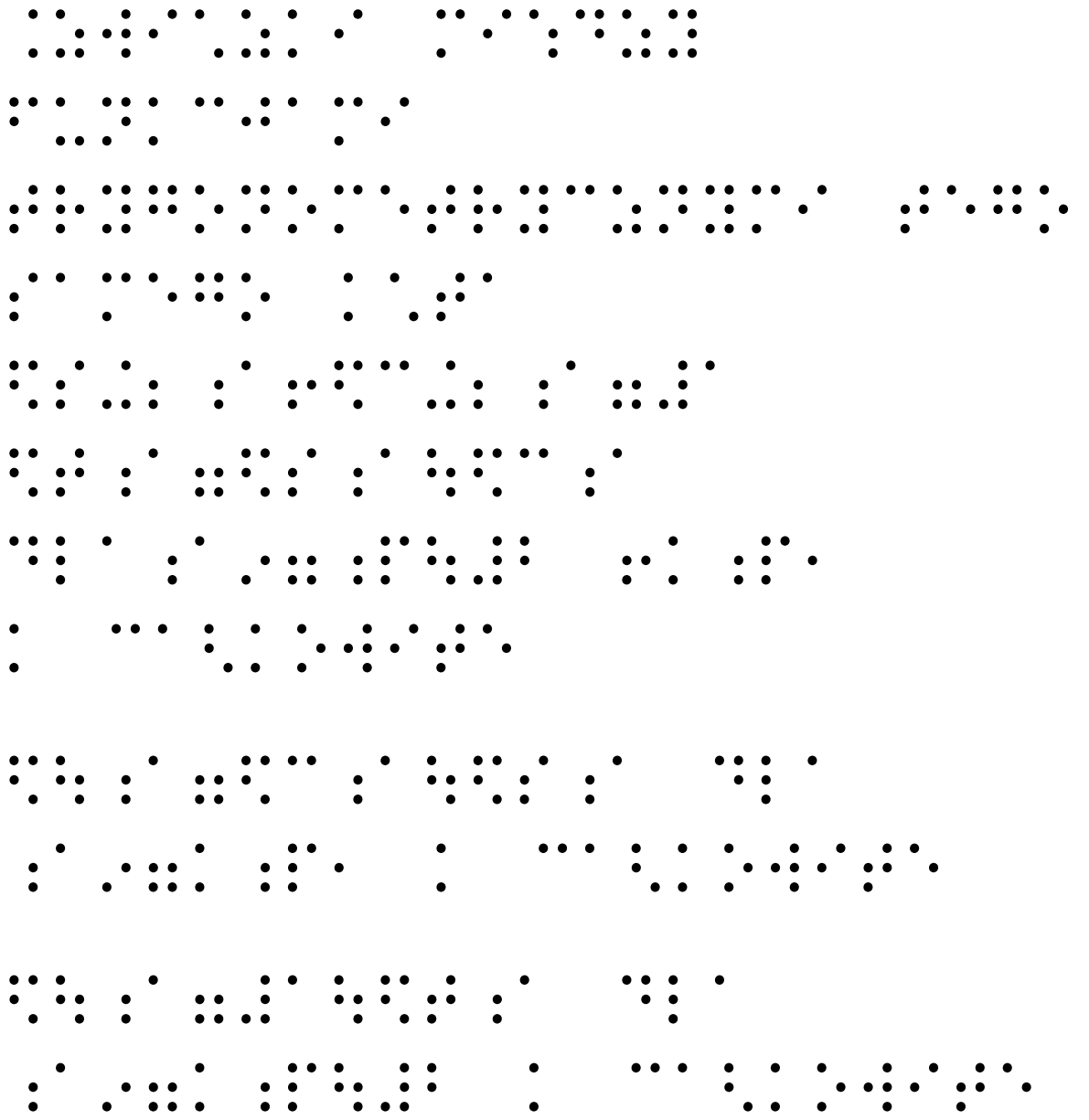


Wartości funkcji trygonometrycznych , gdy $\alpha \in \langle 0, 2\pi \rangle$

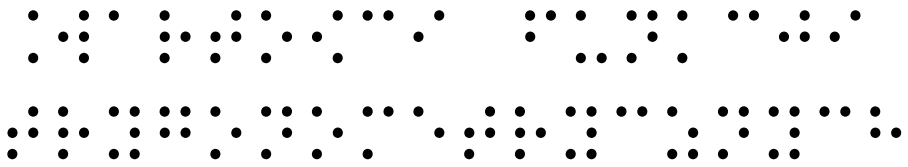


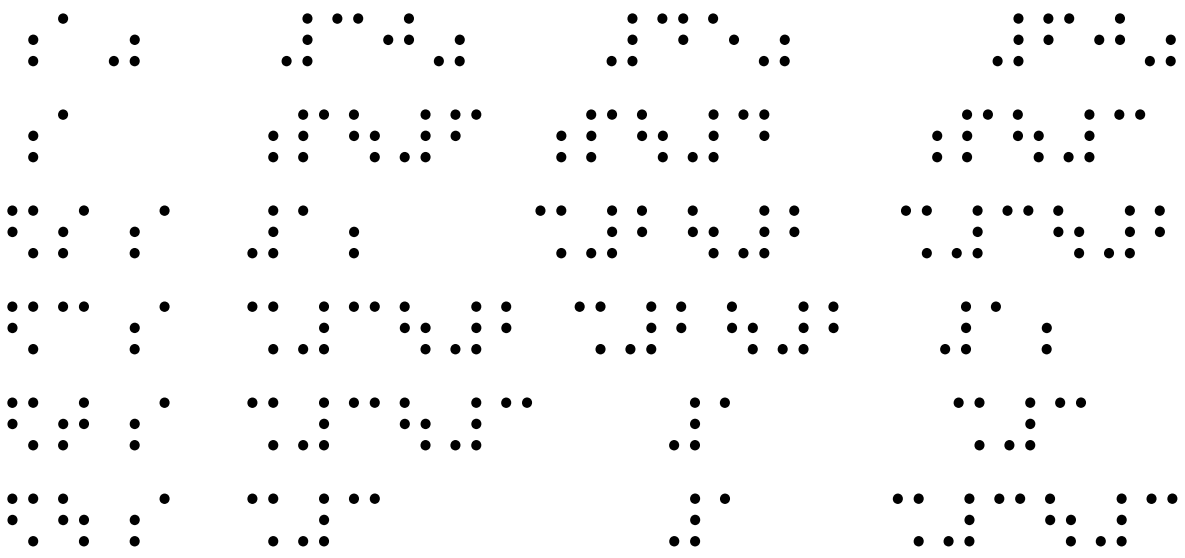


Związki między funkcjami trygonometrycznymi

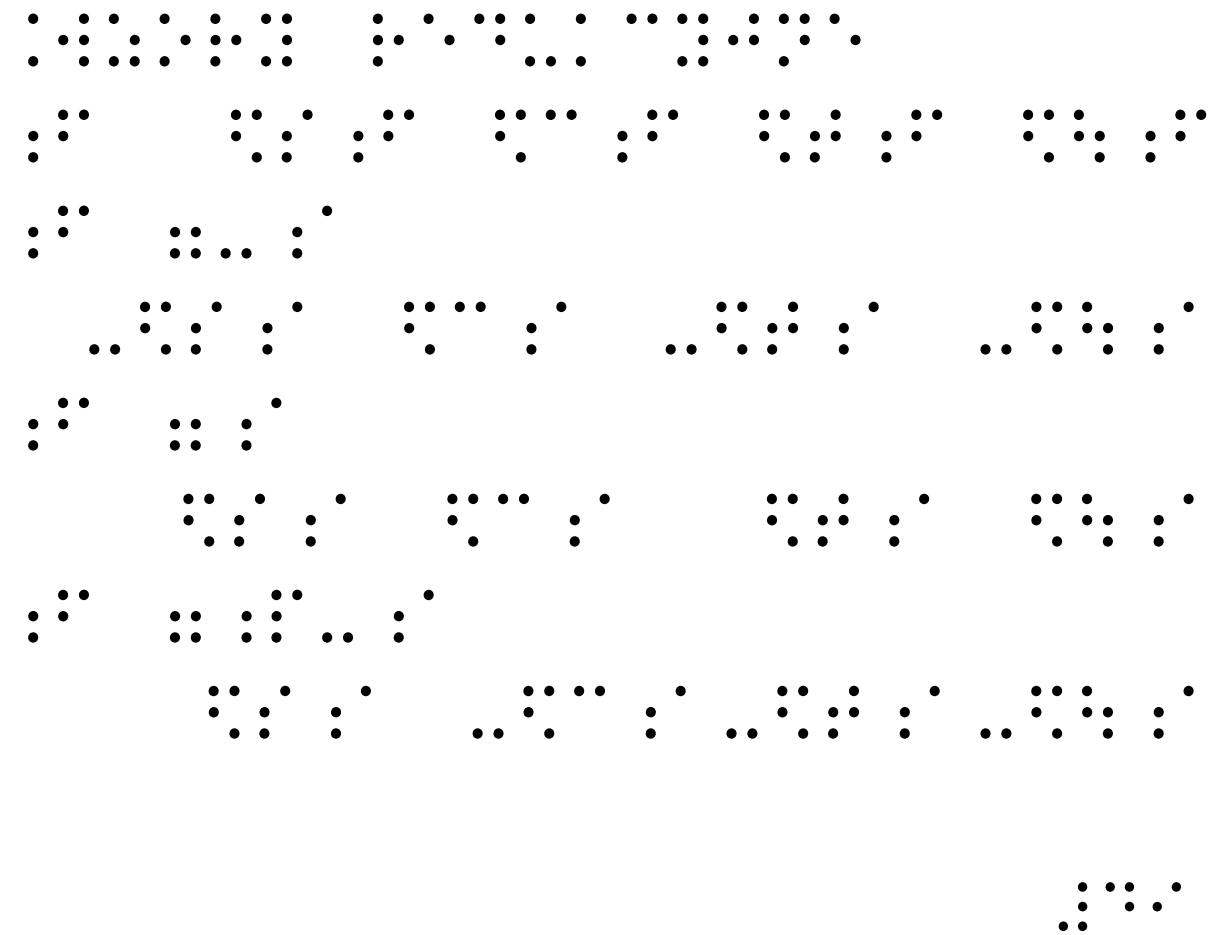


Wartości funkcji trygonometrycznych (30°, 45°, 60°)

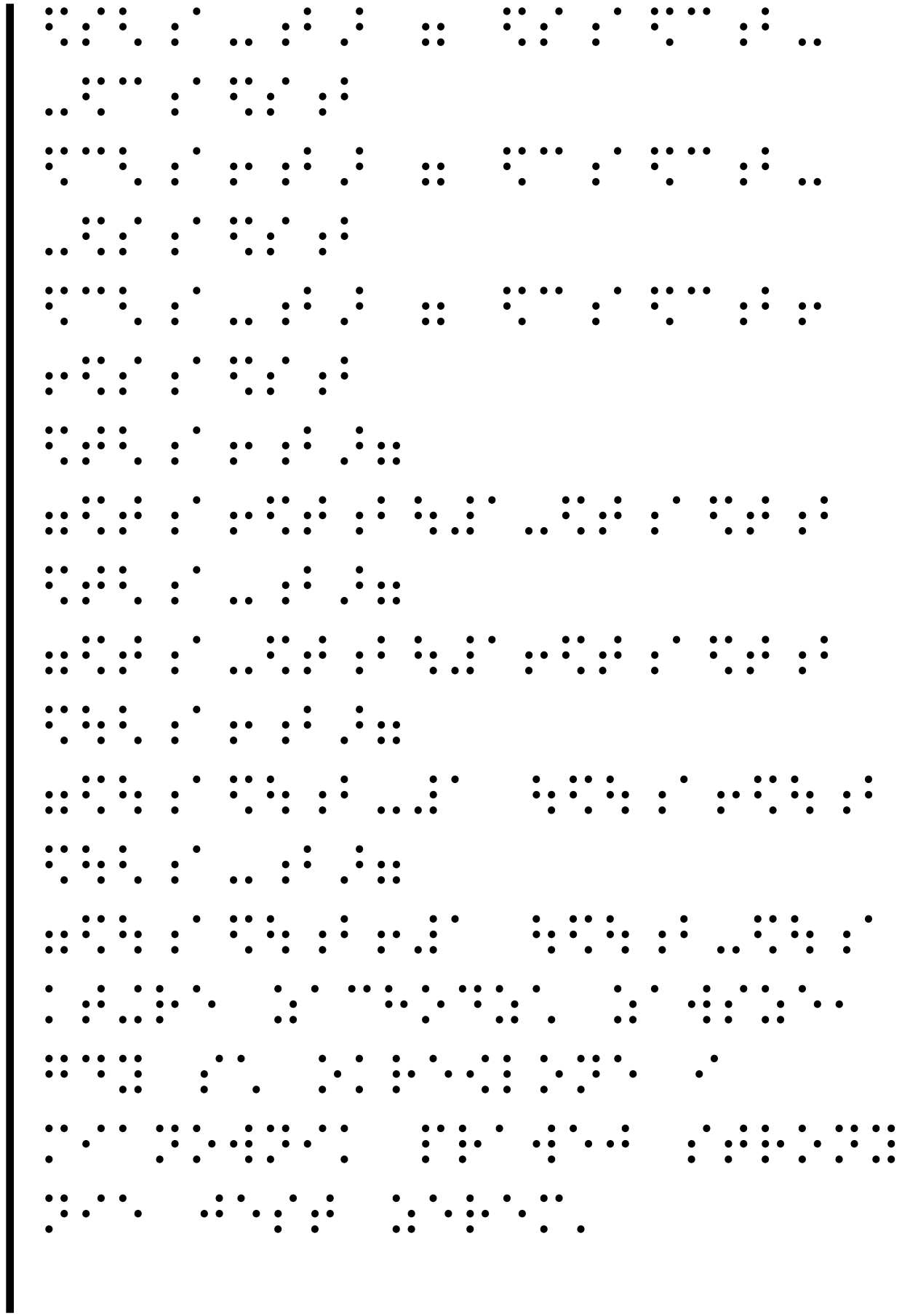




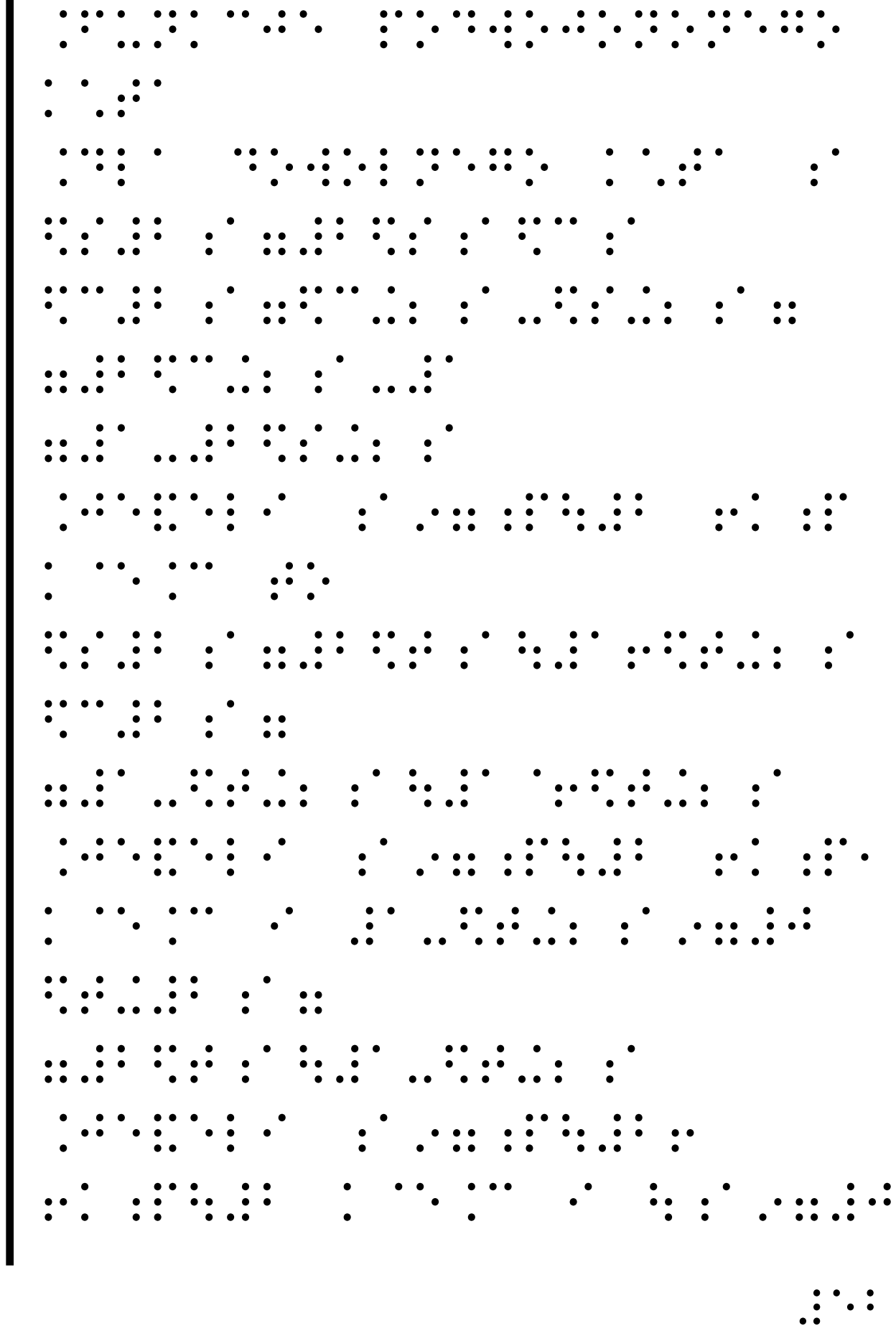
Wzory redukcyjne



Funkcje sumy i różnicy kątów

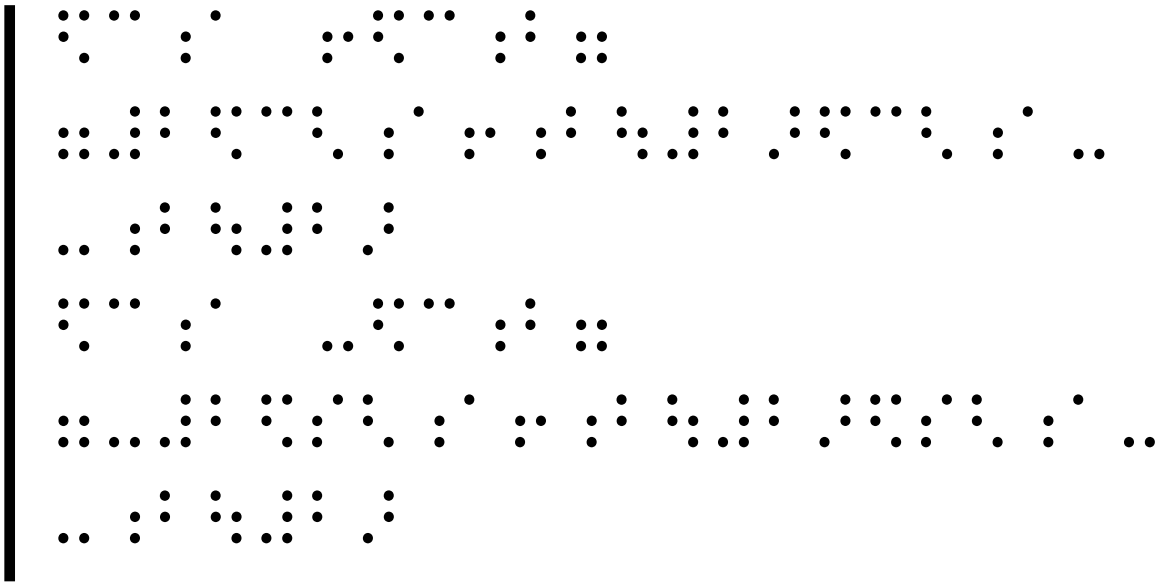


Funkcje podwojonego kąta



Funkcje kąta potrojonego

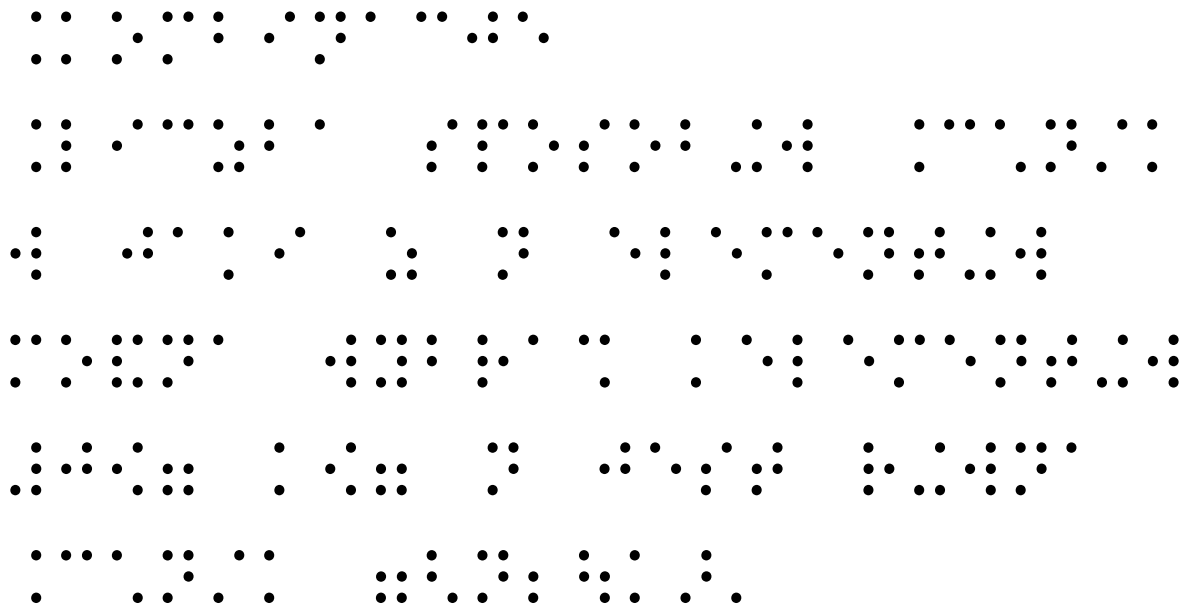
Sumy i różnice funkcji trygonometrycznych



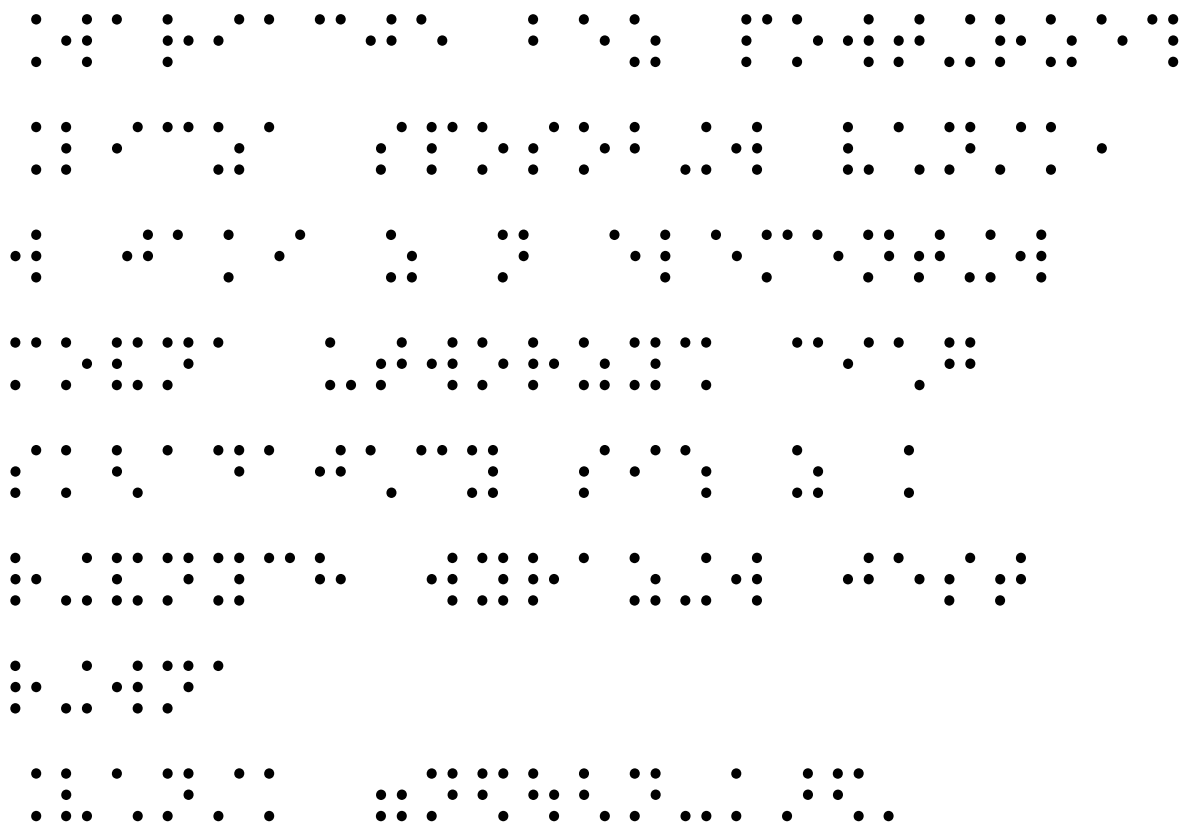
Kombinatoryka

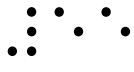
Permutacje

Kombinacje

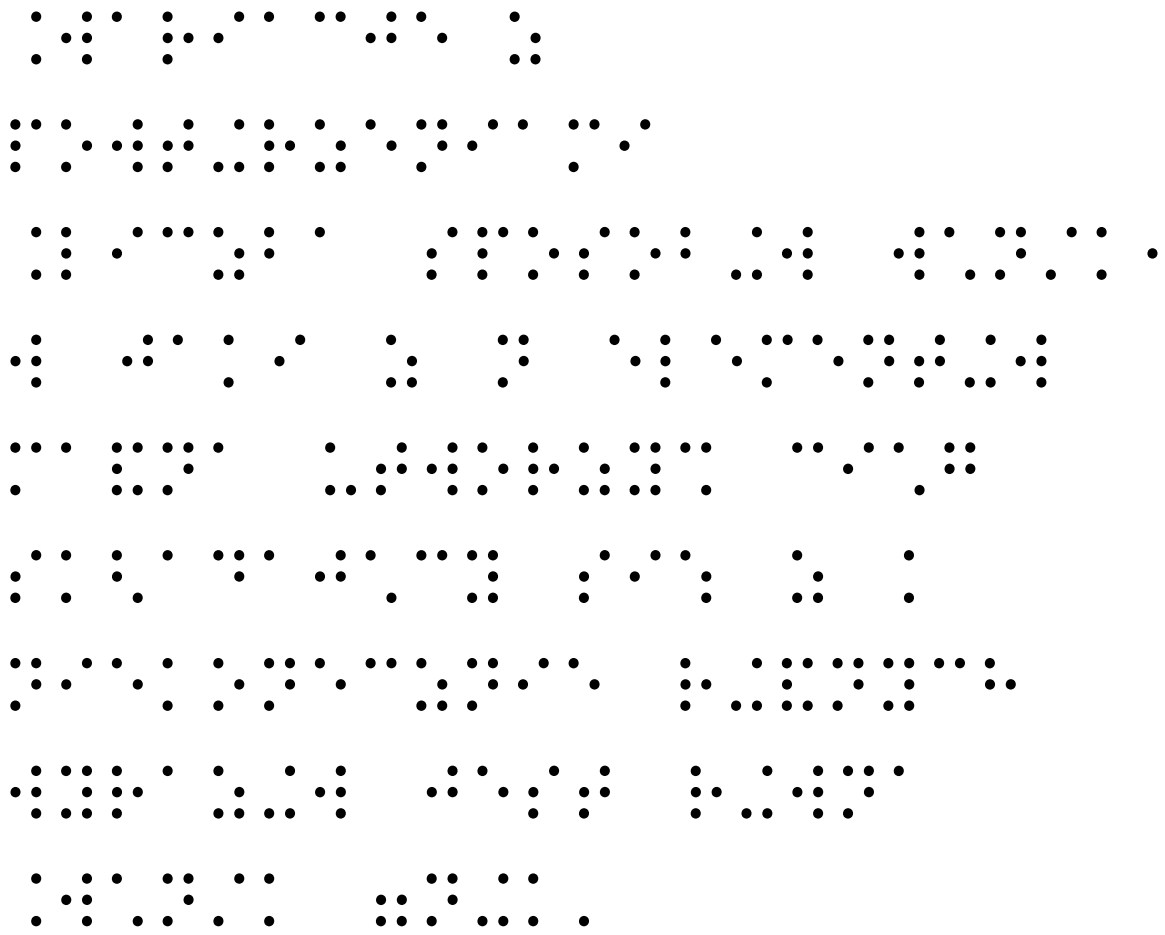


Wariacje bez powtórzeń

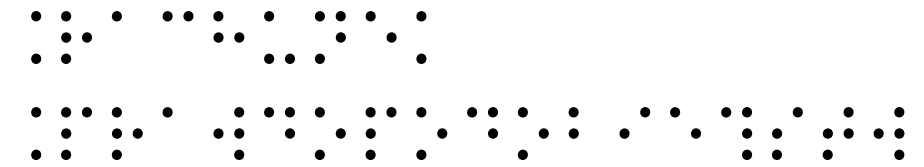




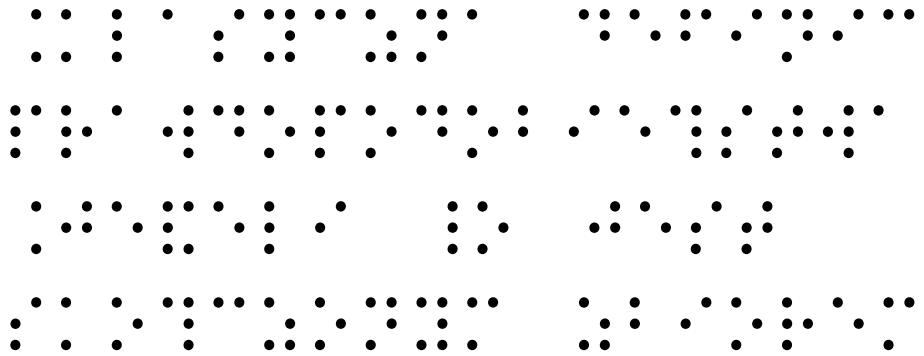
Wariacje z powtórzeniami

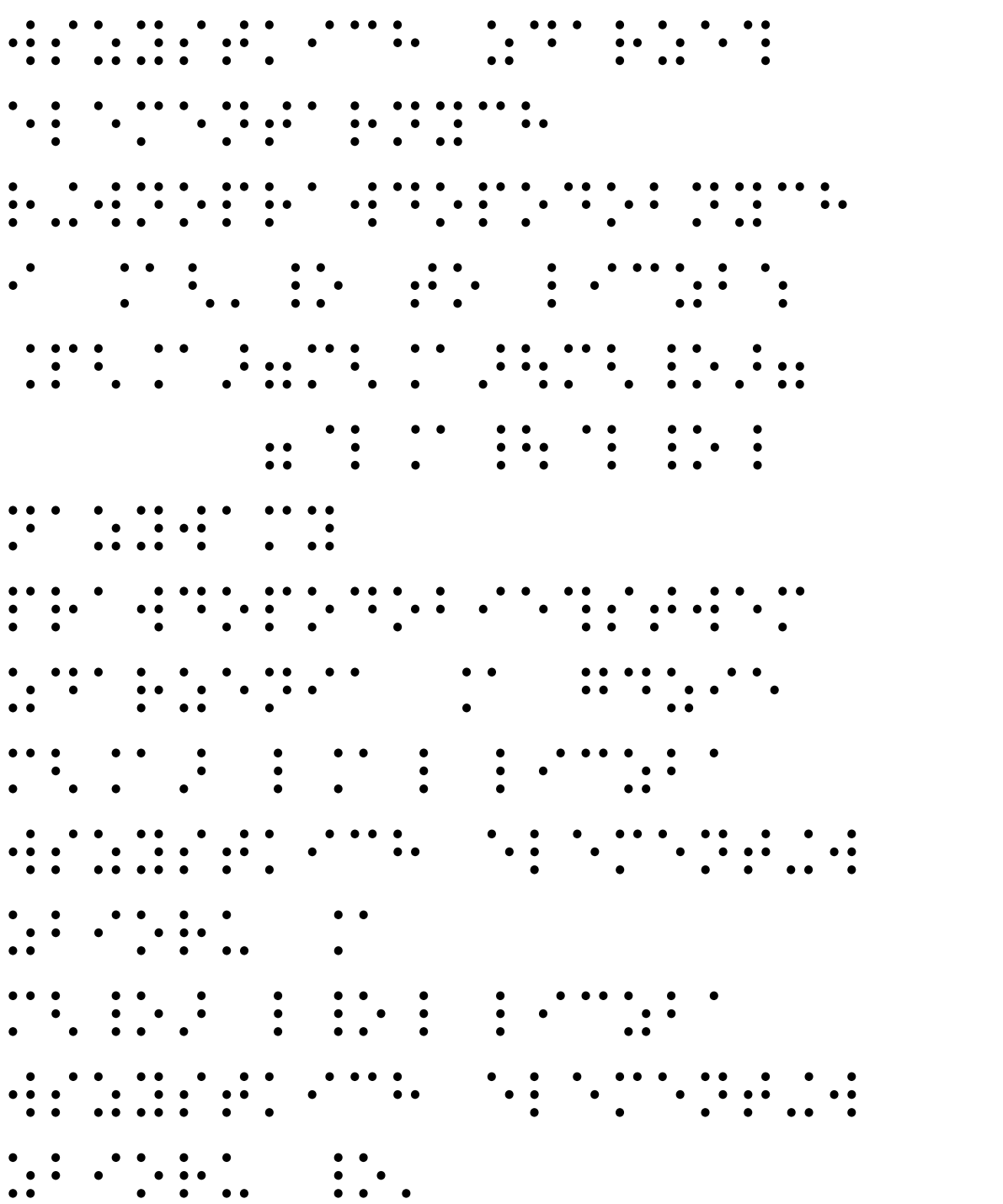


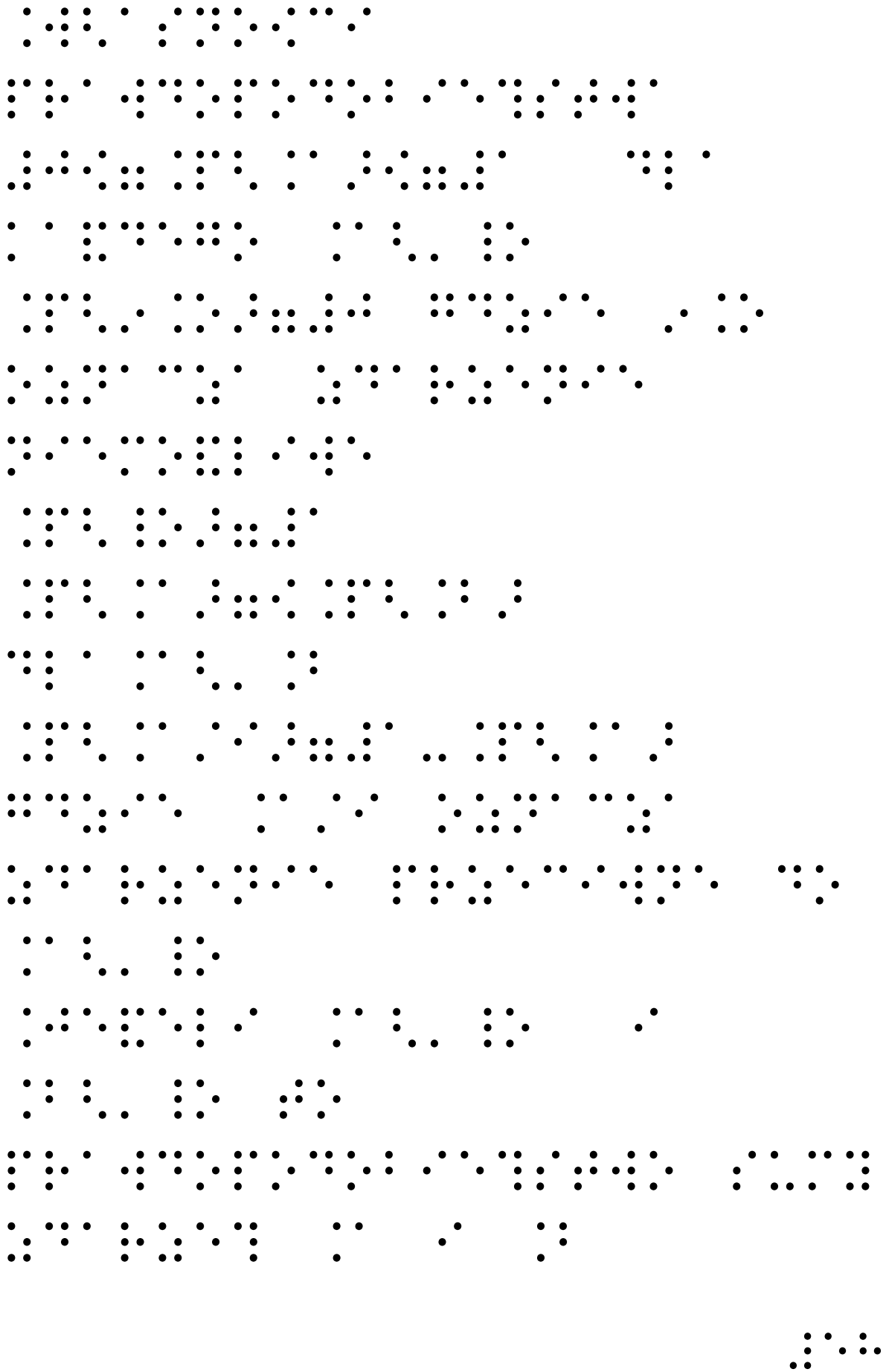
Rachunek prawdopodobieństwa



Klasyczna definicja





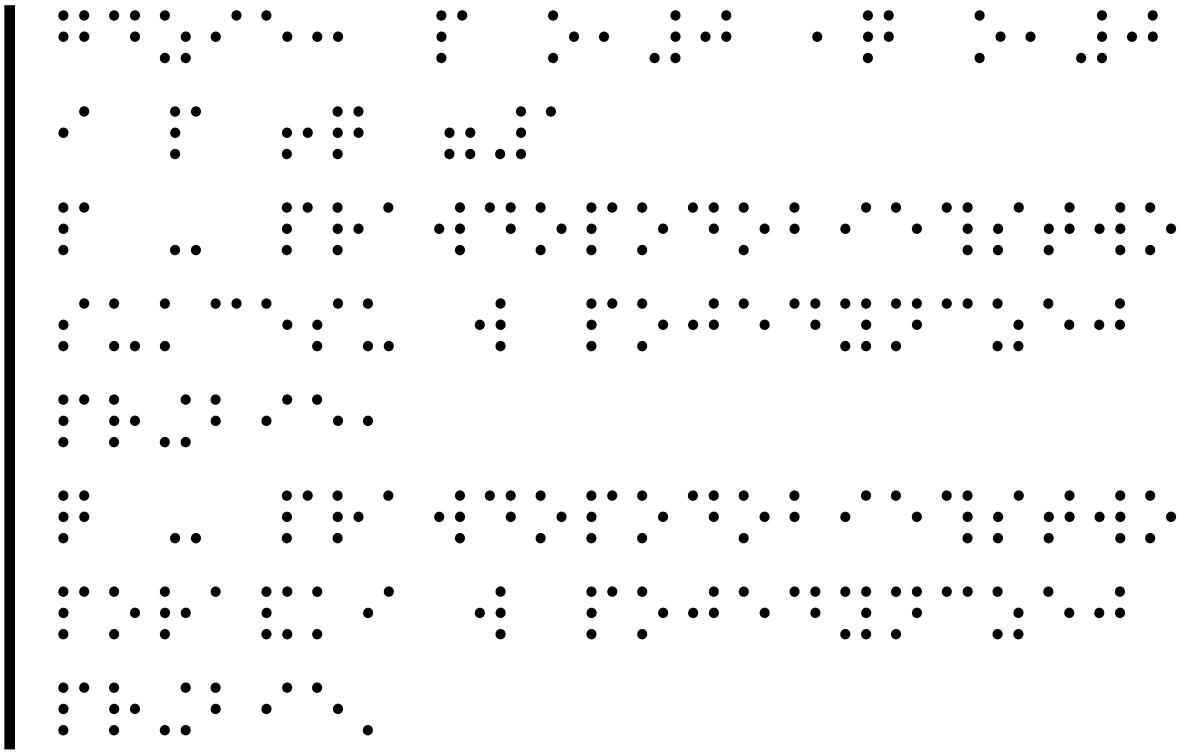


Zdarzenia niezależne

Prawdopodobieństwo warunkowe

Twierdzenie o prawdopodobieństwie całkowitym

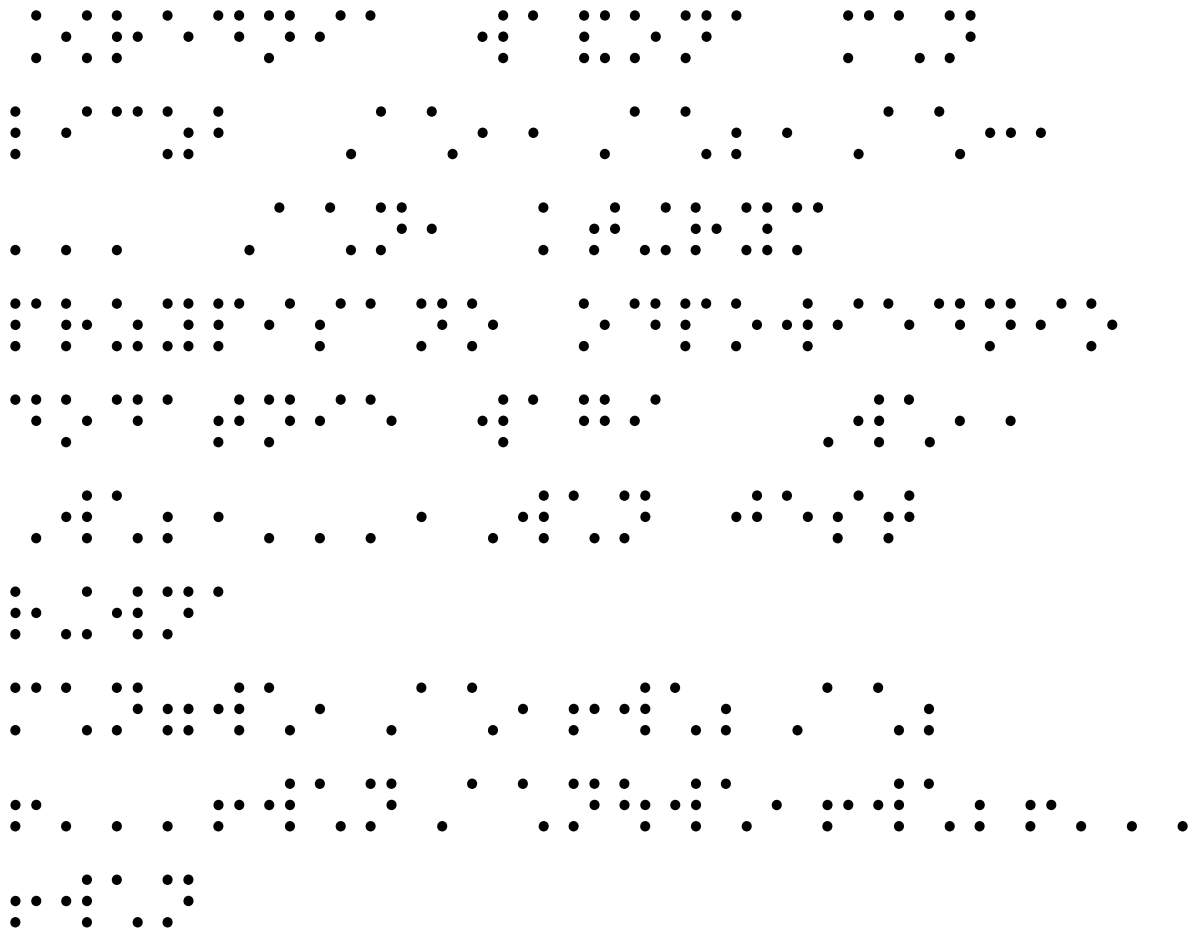
Twierdzenie Bernoullego



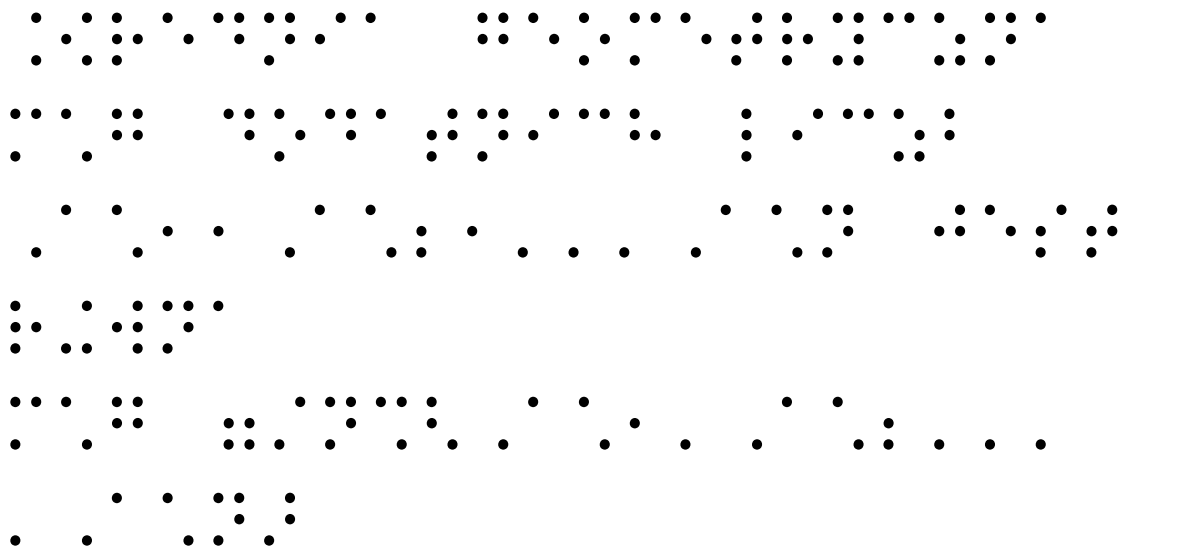
Parametry danych statystycznych

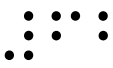
Średnia arytmetyczna

Średnia ważona

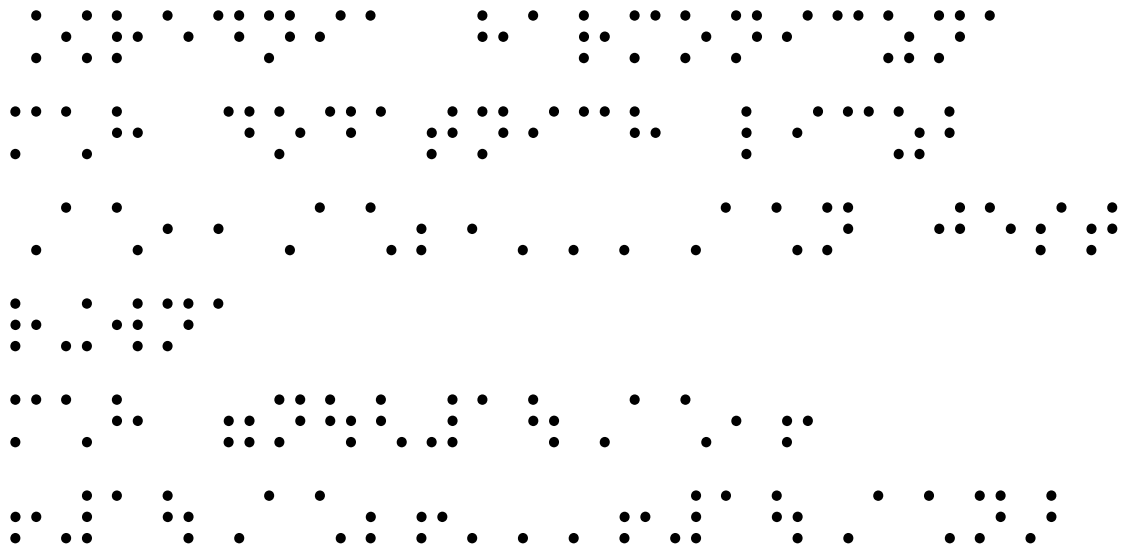


Średnia geometryczna

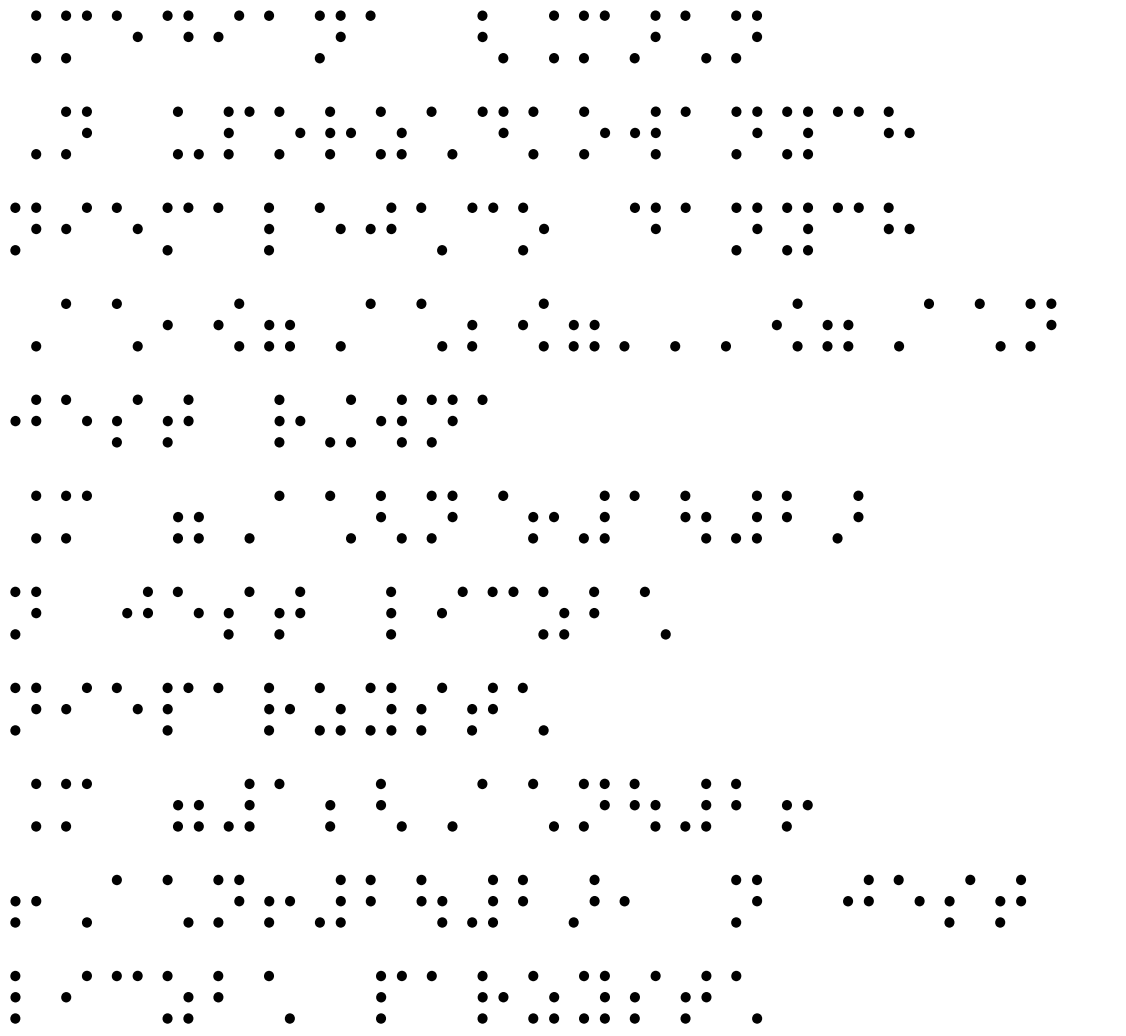


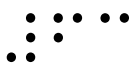


Średnia harmoniczna

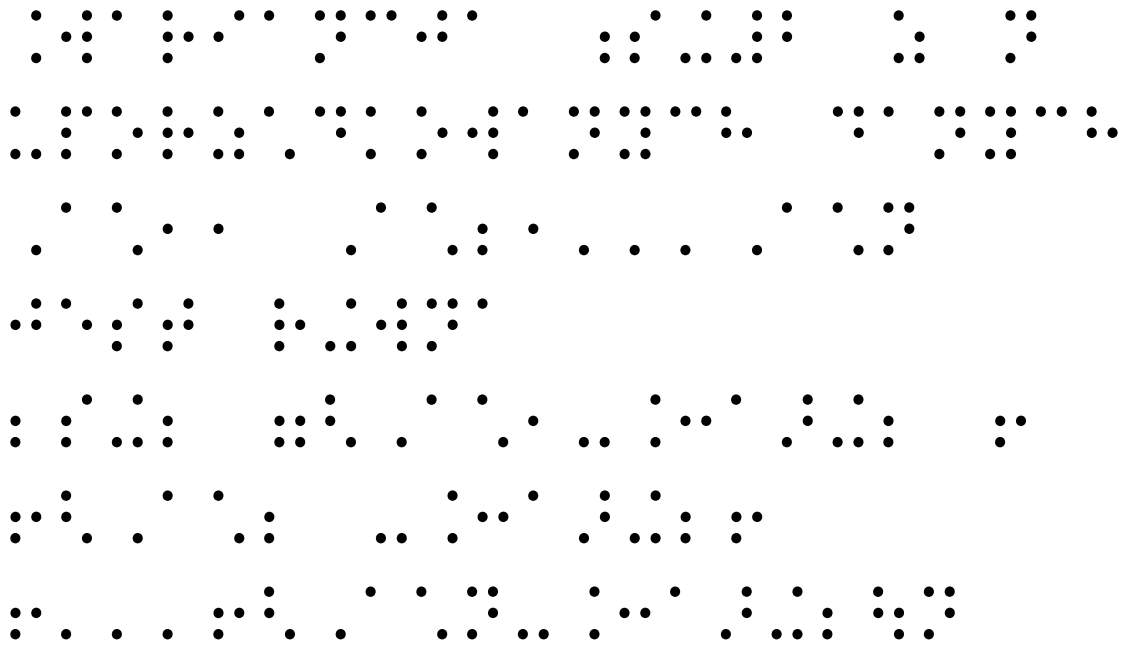


Mediana

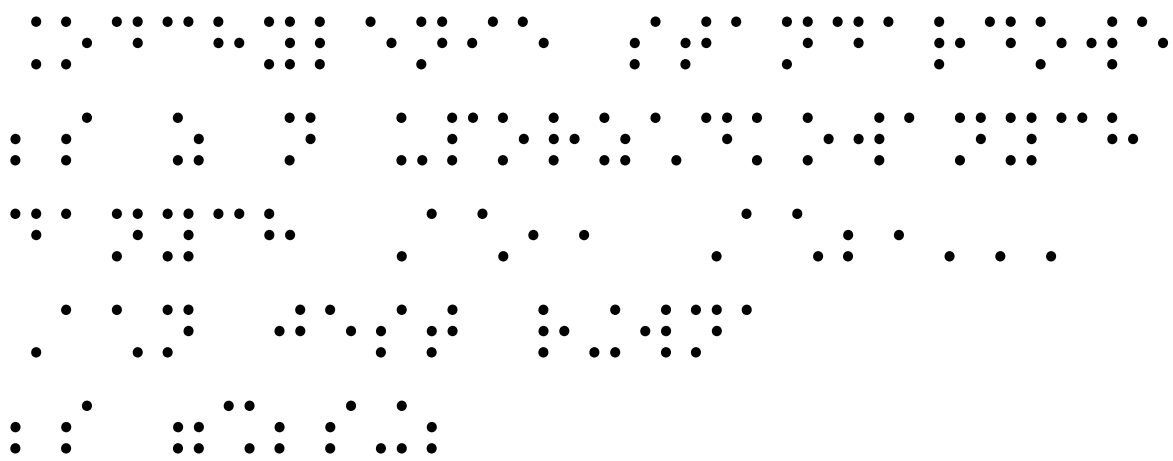


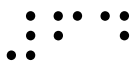


Wariancja



Odchylenie standardowe





TABLICA FUNKCJI TRYGONOMETRYCZNYCH