

Livello *Base*

Consigliata per scuola primaria e primi della scuola secondaria di primo grado

Metodologia di riferimento:

Gamification



“Making e Coding con Tangram”

A cura di

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équipe Sardegna

Emilia Sera

équipe Lazio

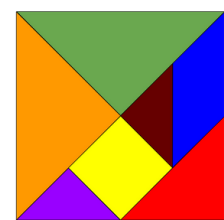
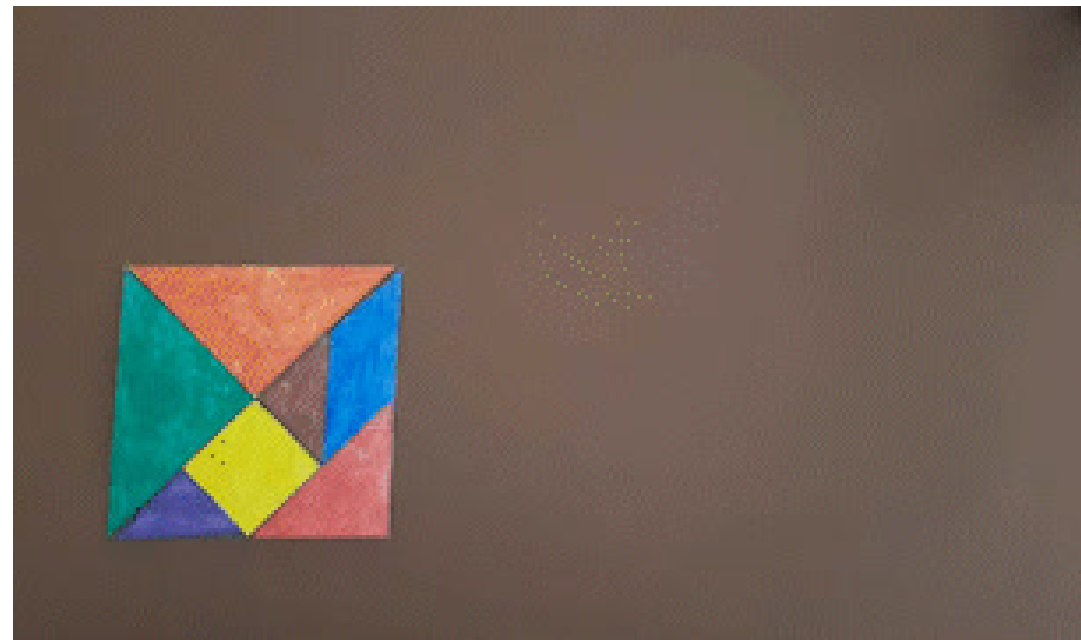
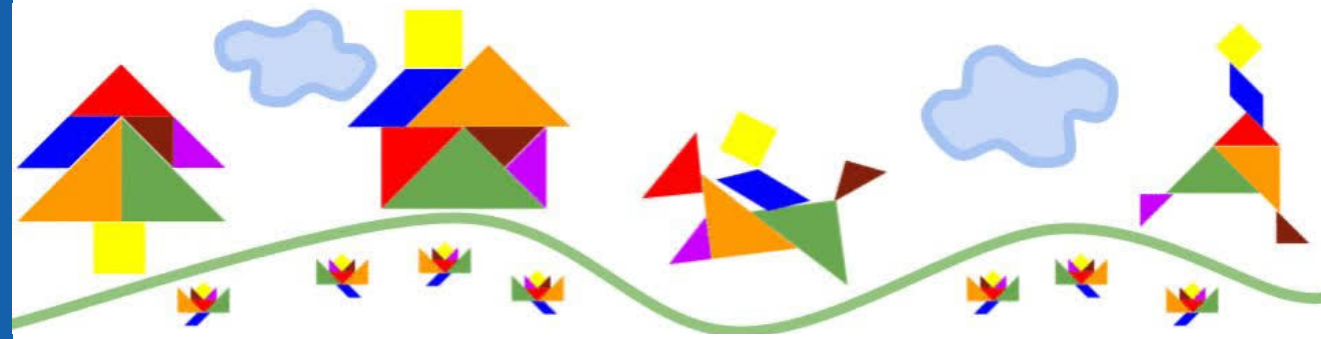
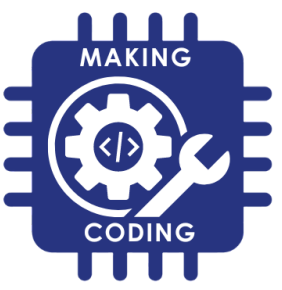
Lina Cannone

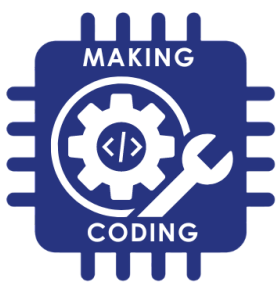
équipe Lazio

Piergiovanni Alisena

équipe Lombardia

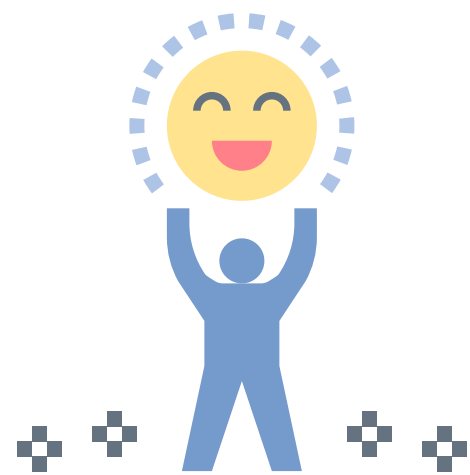
- Équipe
- Formative
- Territoriali





Metodologia

La metodologia consigliata è quella della Gamification che sfrutta le potenzialità del gioco



Piacevole

Il gioco è percepito come divertente, gioioso



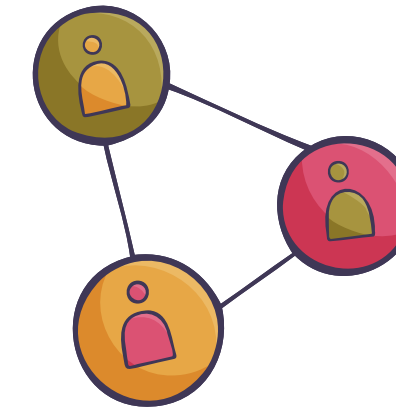
Significativo

Il gioco aiuta a trovare significato in ciò che si sta facendo



Riflessivo

Il gioco richiede un pensiero attivo impegnato



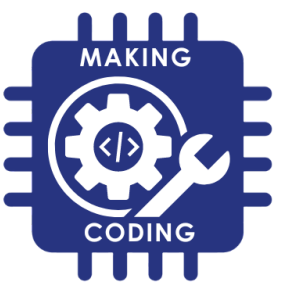
Iterativo

Il gioco richiede un processo di prove ed errori per testare ciò che si è intuito



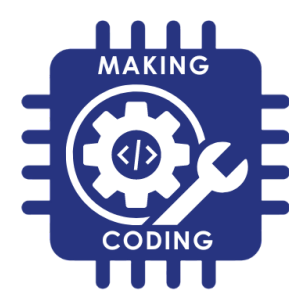
Sociale

Il gioco passa per l'interazione sociale e sviluppa soft skill



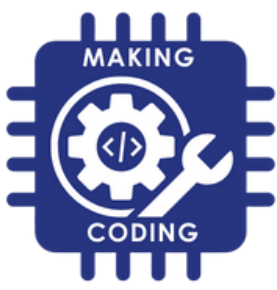
Badge da ritagliare per completare il disegno





Scheda da completare con i badge



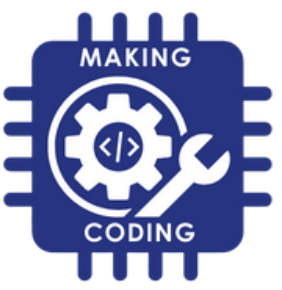


**Scopriamo
il Tangram**

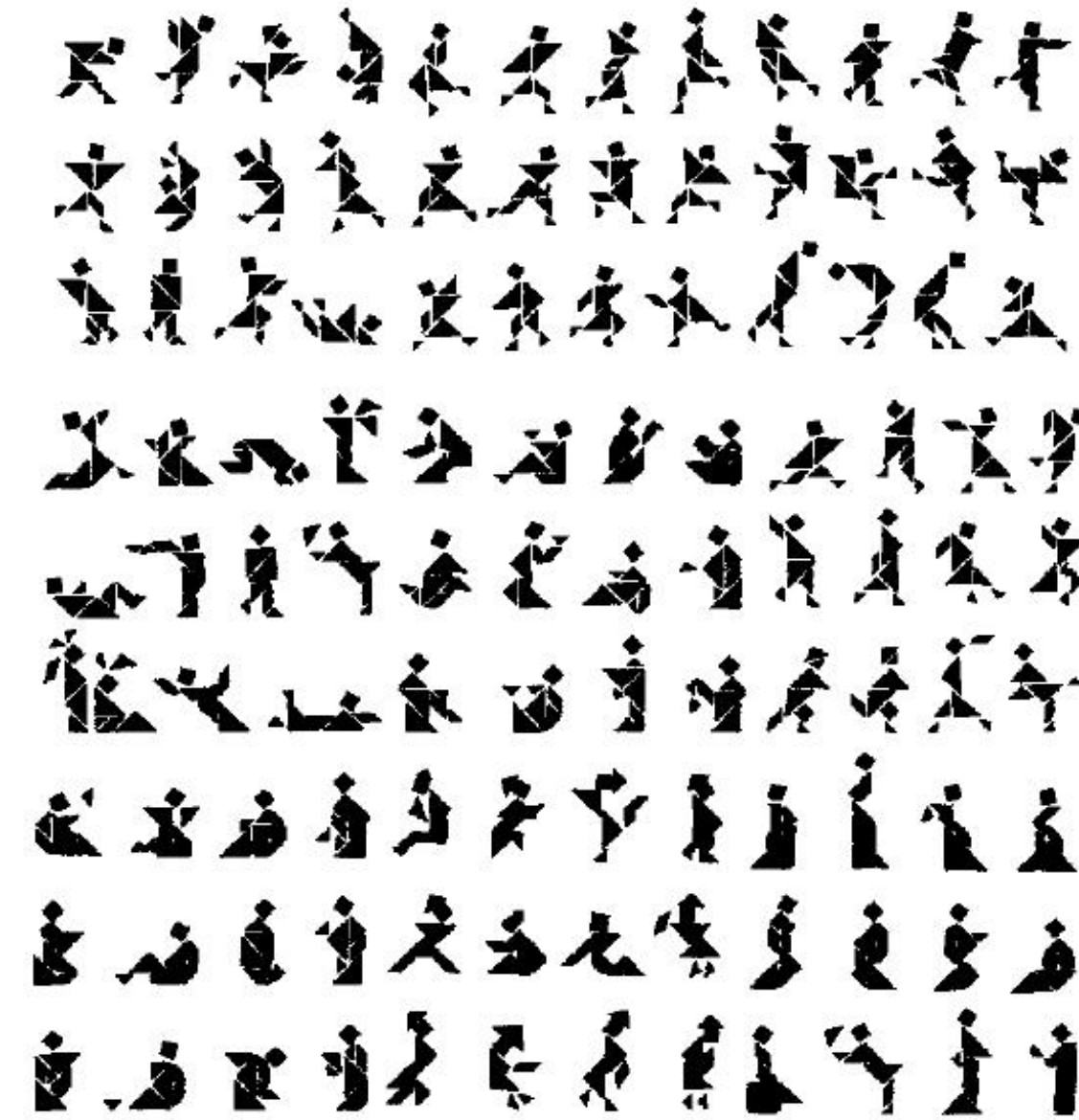
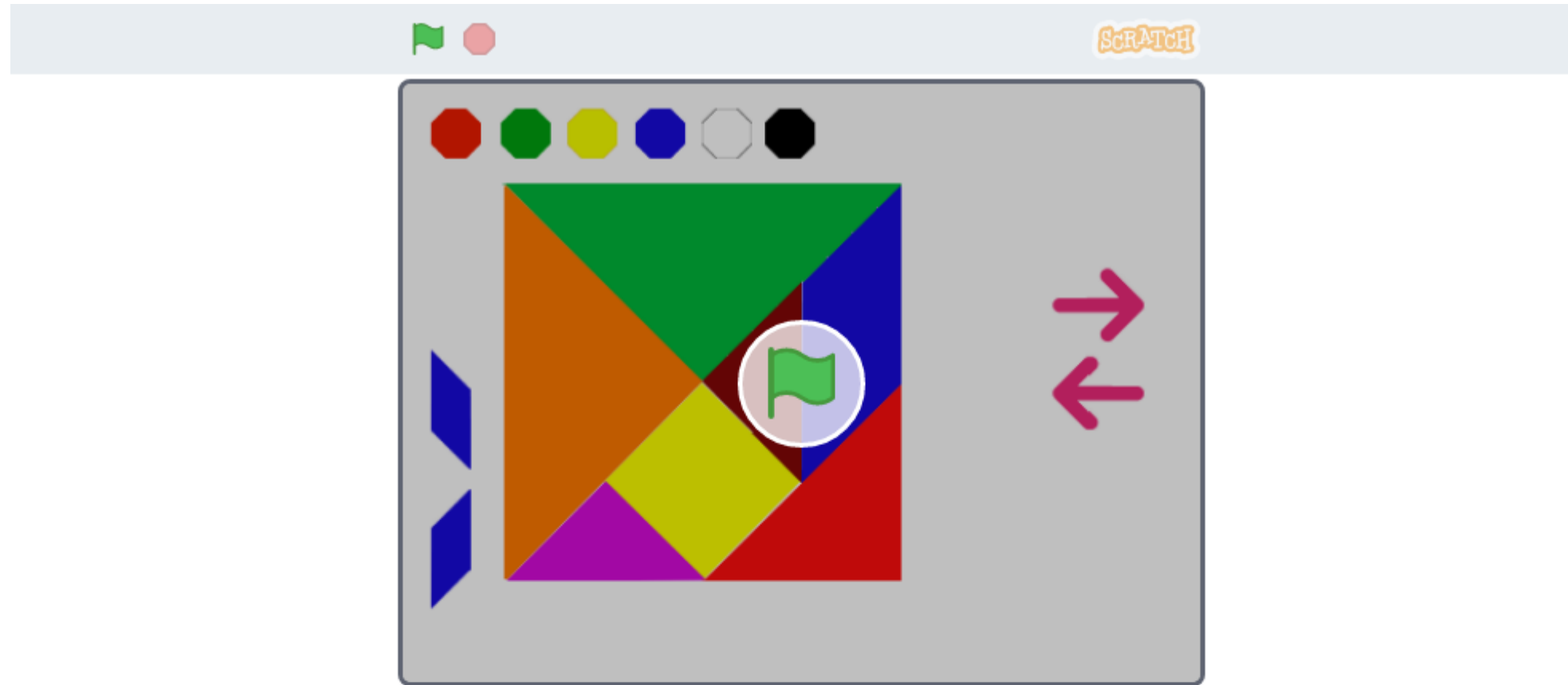
**Costruiamo
il Tangram**

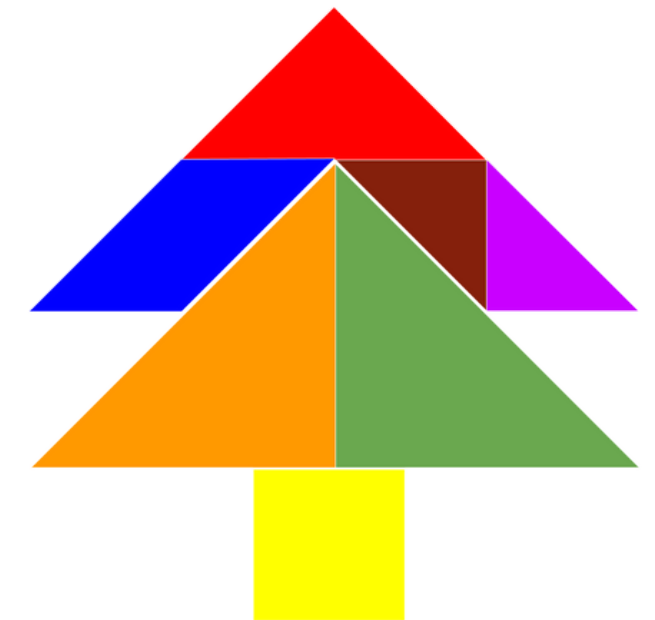
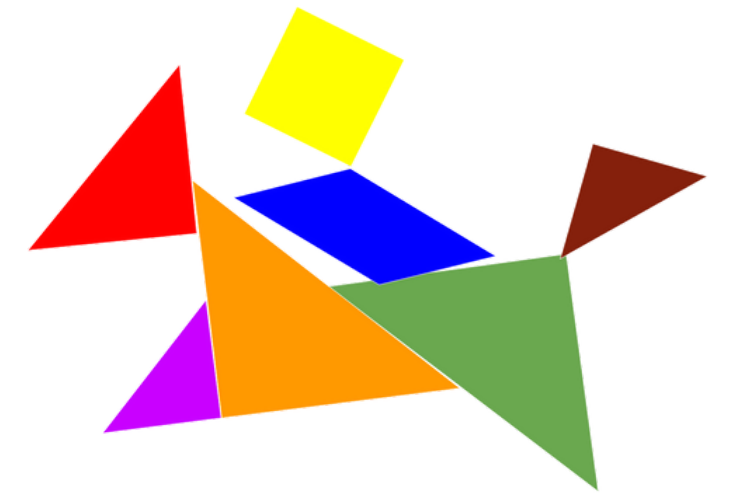
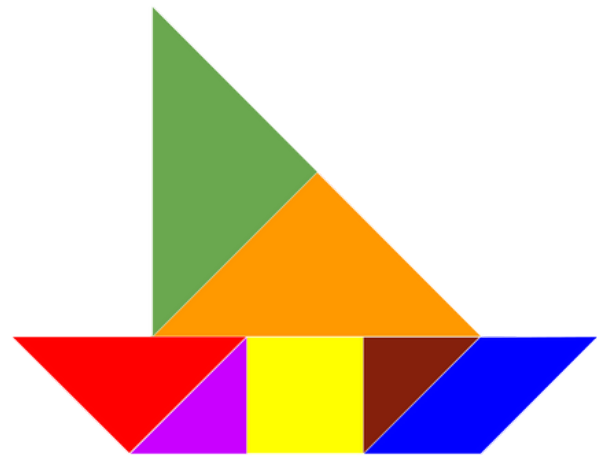
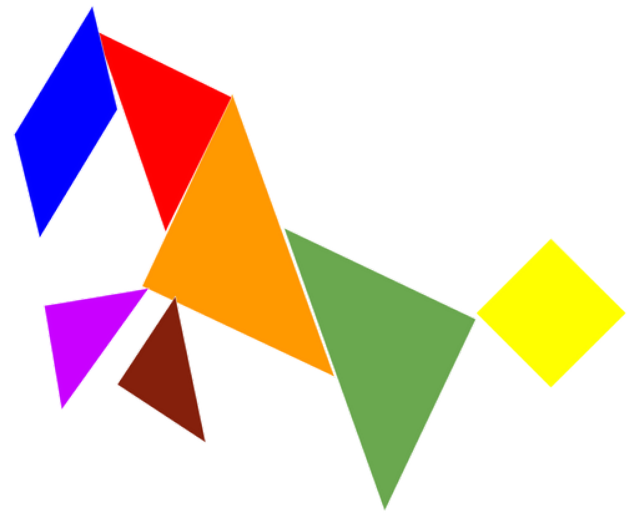
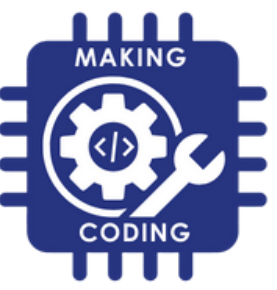


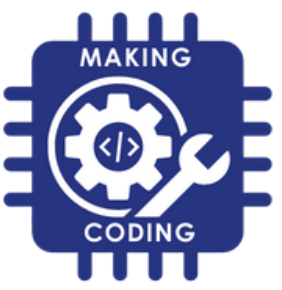
Giochiamo!



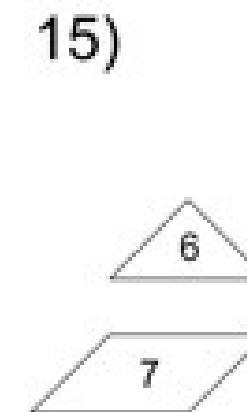
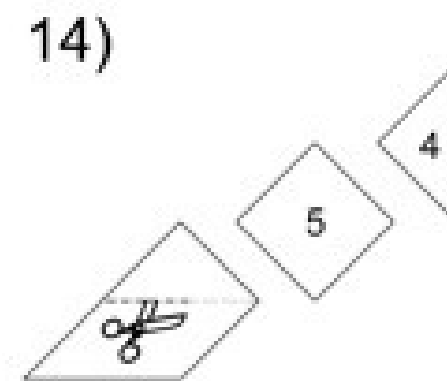
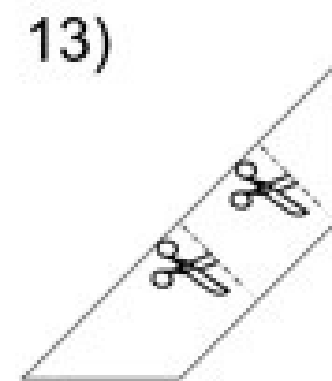
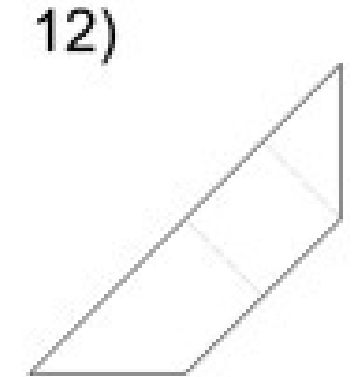
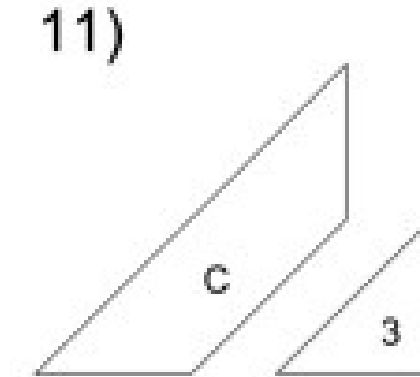
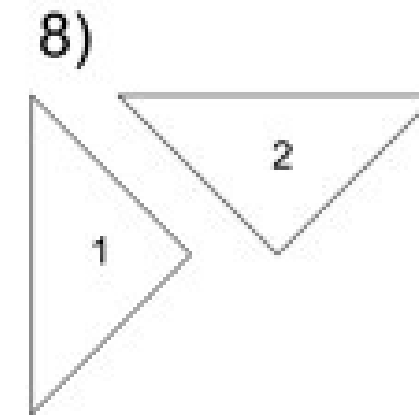
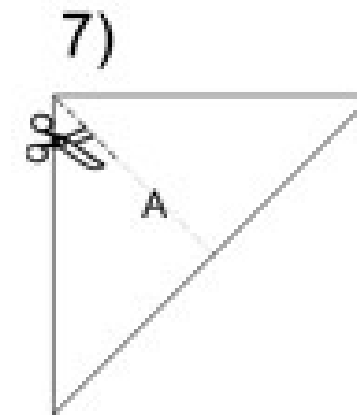
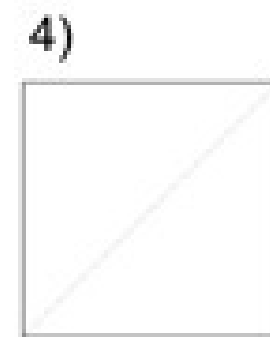
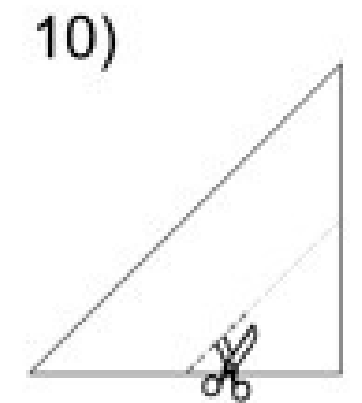
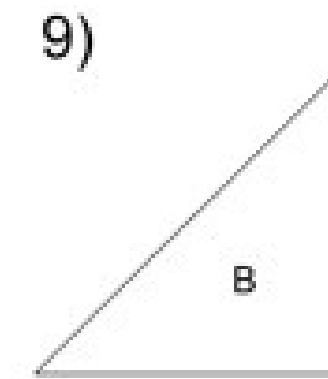
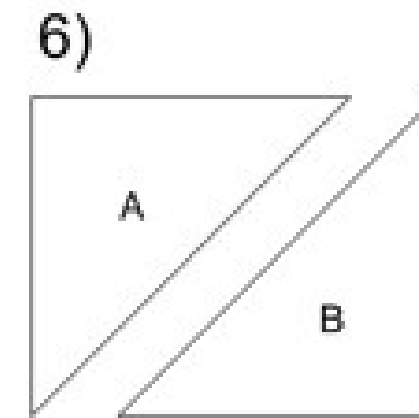
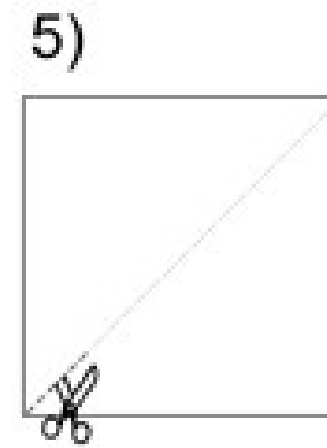
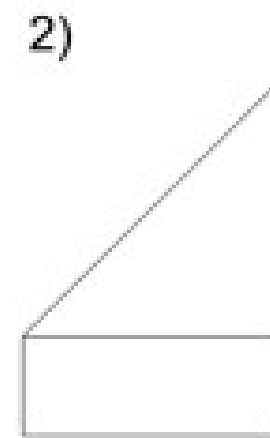
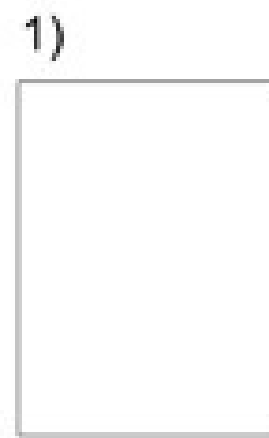
Scopriamo
il Tangram

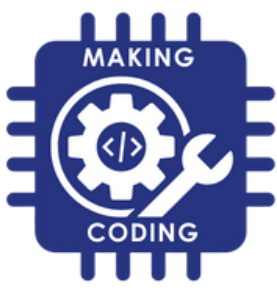






Costruiamo il Tangram





Costruiamo
il Tangram



Progettazione

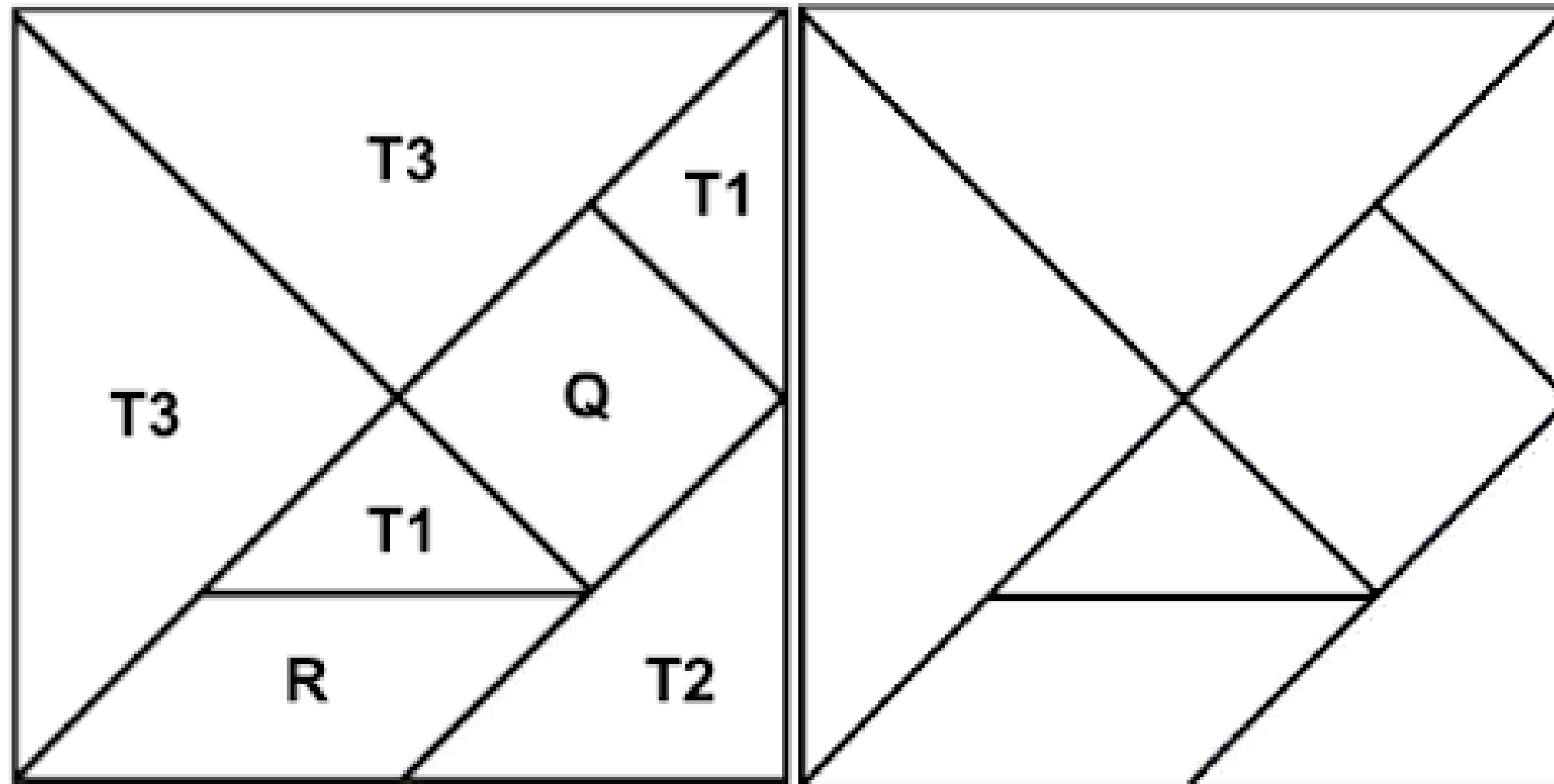
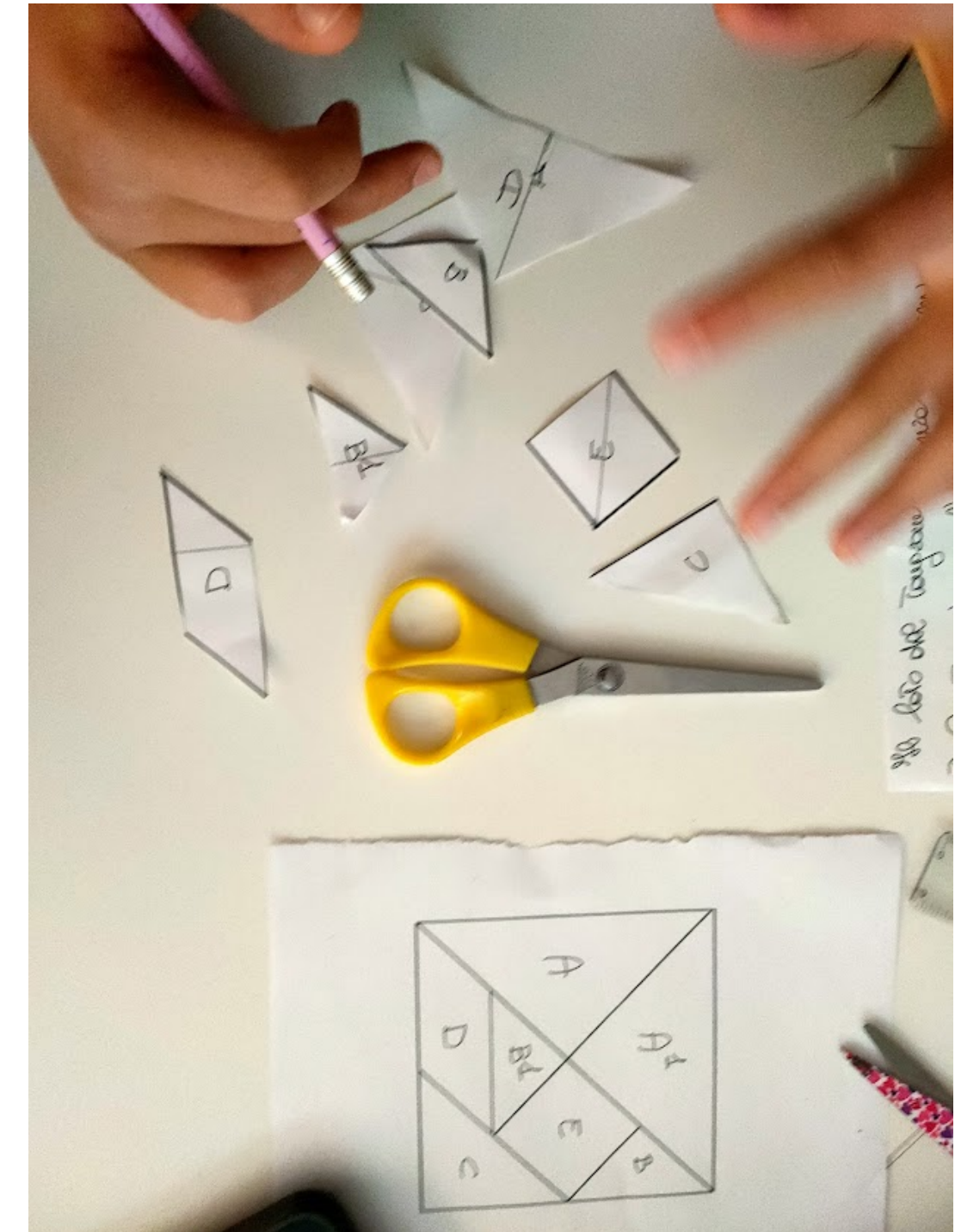
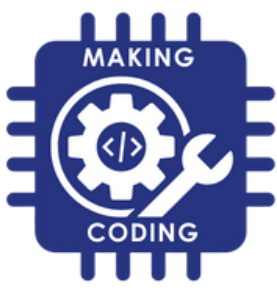


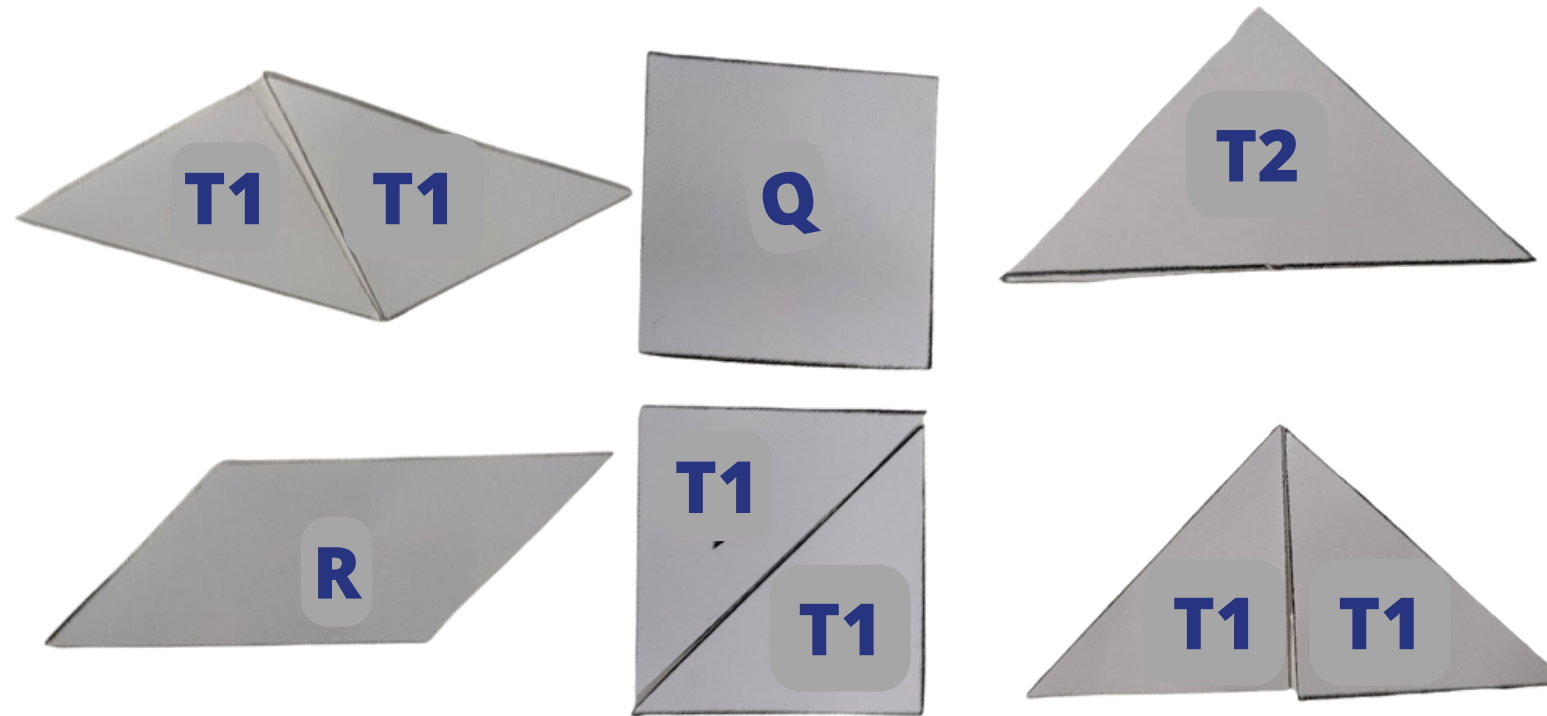
Fig.A

Fig. B





Costruiamo
il Tangram



Domande guida:

Quanto misura l'area del tangram?

Che rapporto c'è tra la base e l'altezza di ogni figura T?

Da quante figure T3 è formato il tangram?

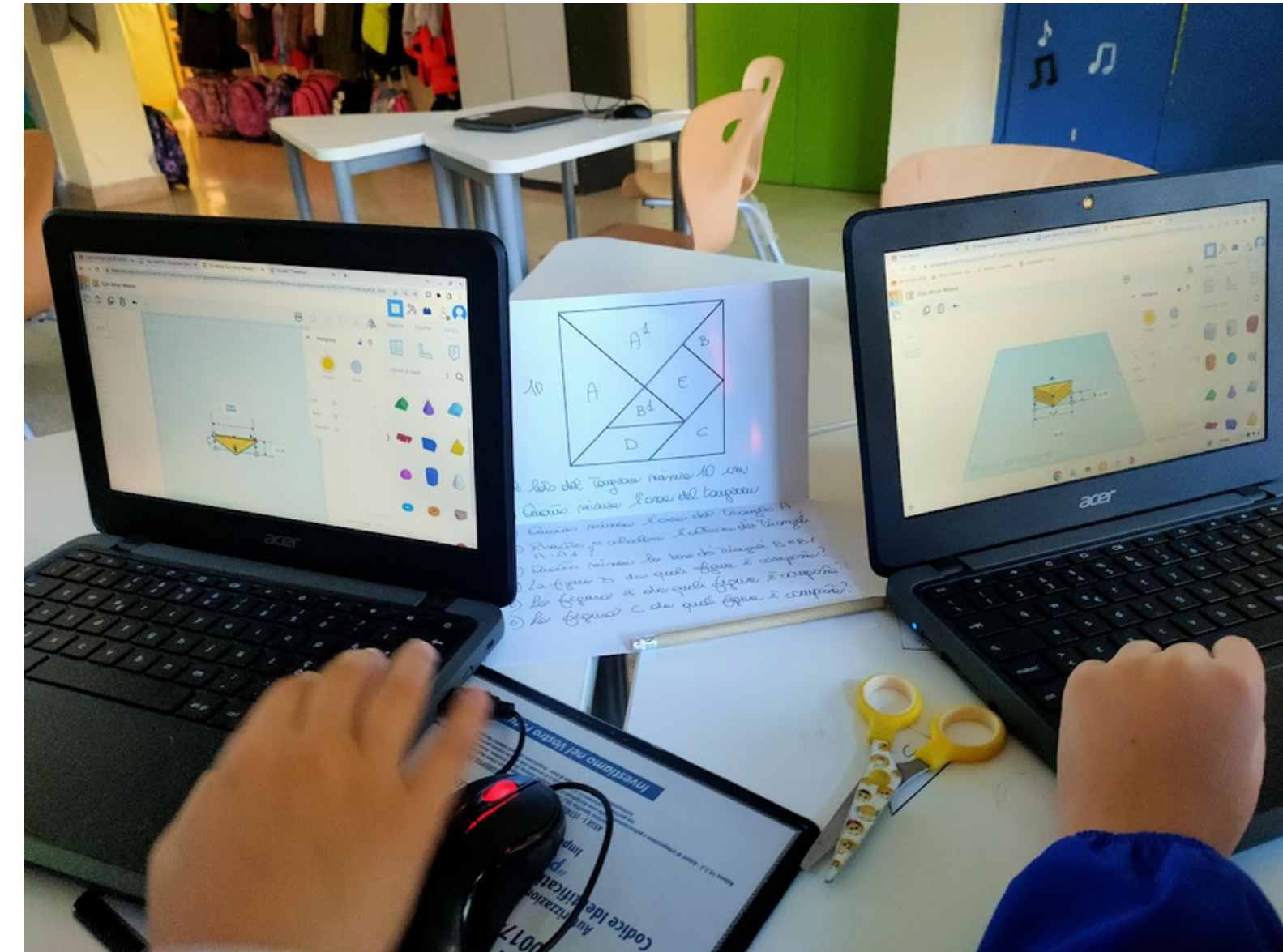
Da quante figure T1 è formata la figura T2?

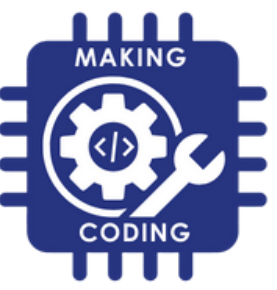
Da quante figure T1 è formata la figura Q?

Da quante figure T1 è formata la figura R?

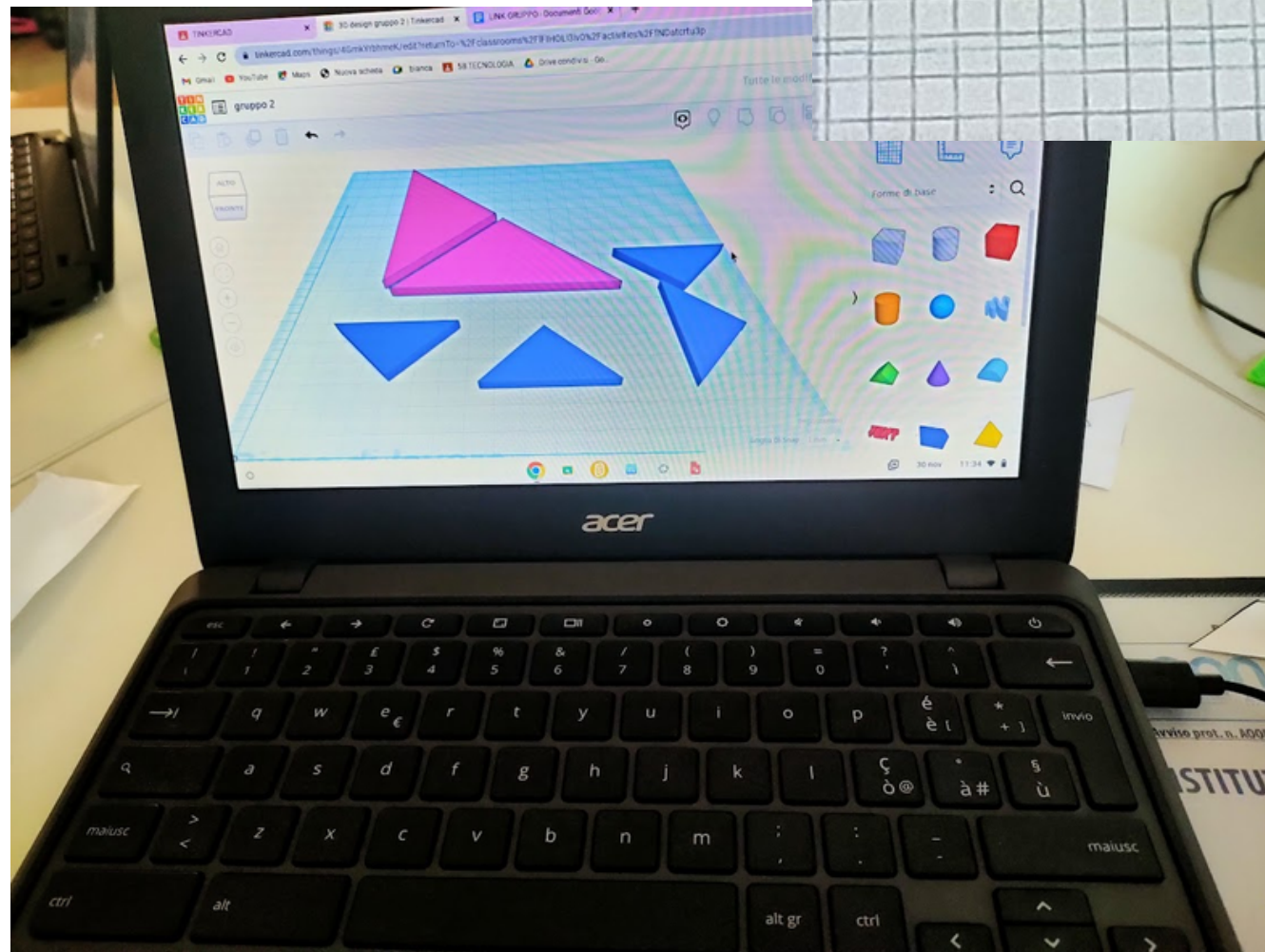
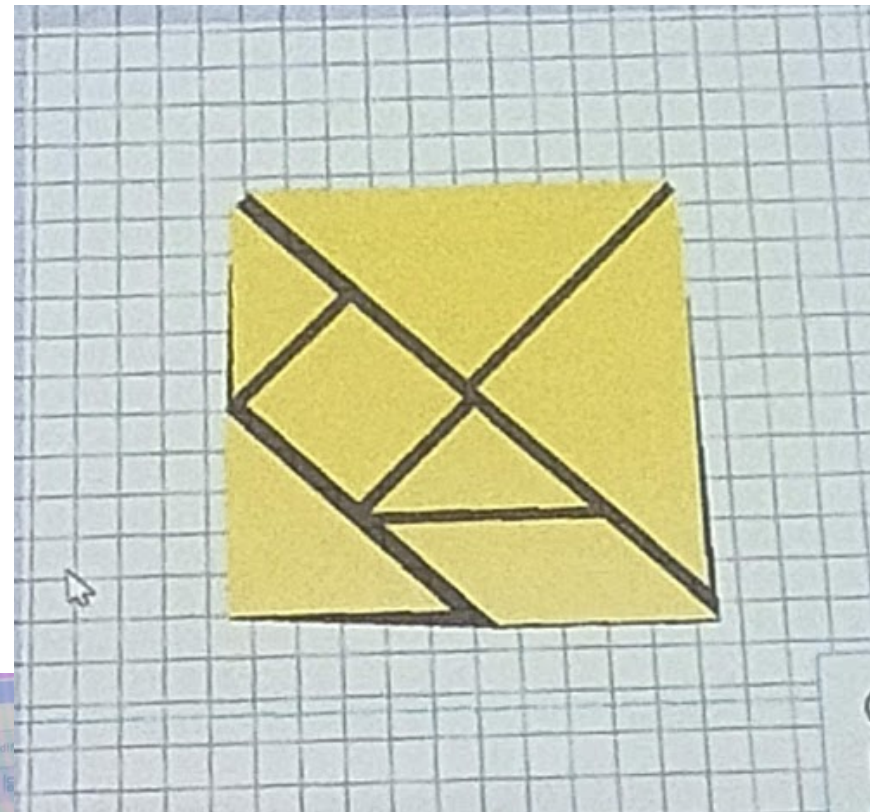
Da quante figure T1 è formata la figura T3

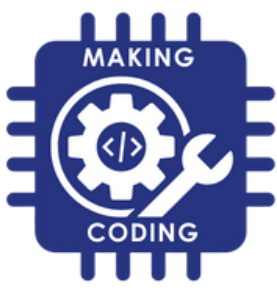
Quante figure T1 servono per comporre la metà di un tangram?





Costruiamo il Tangram



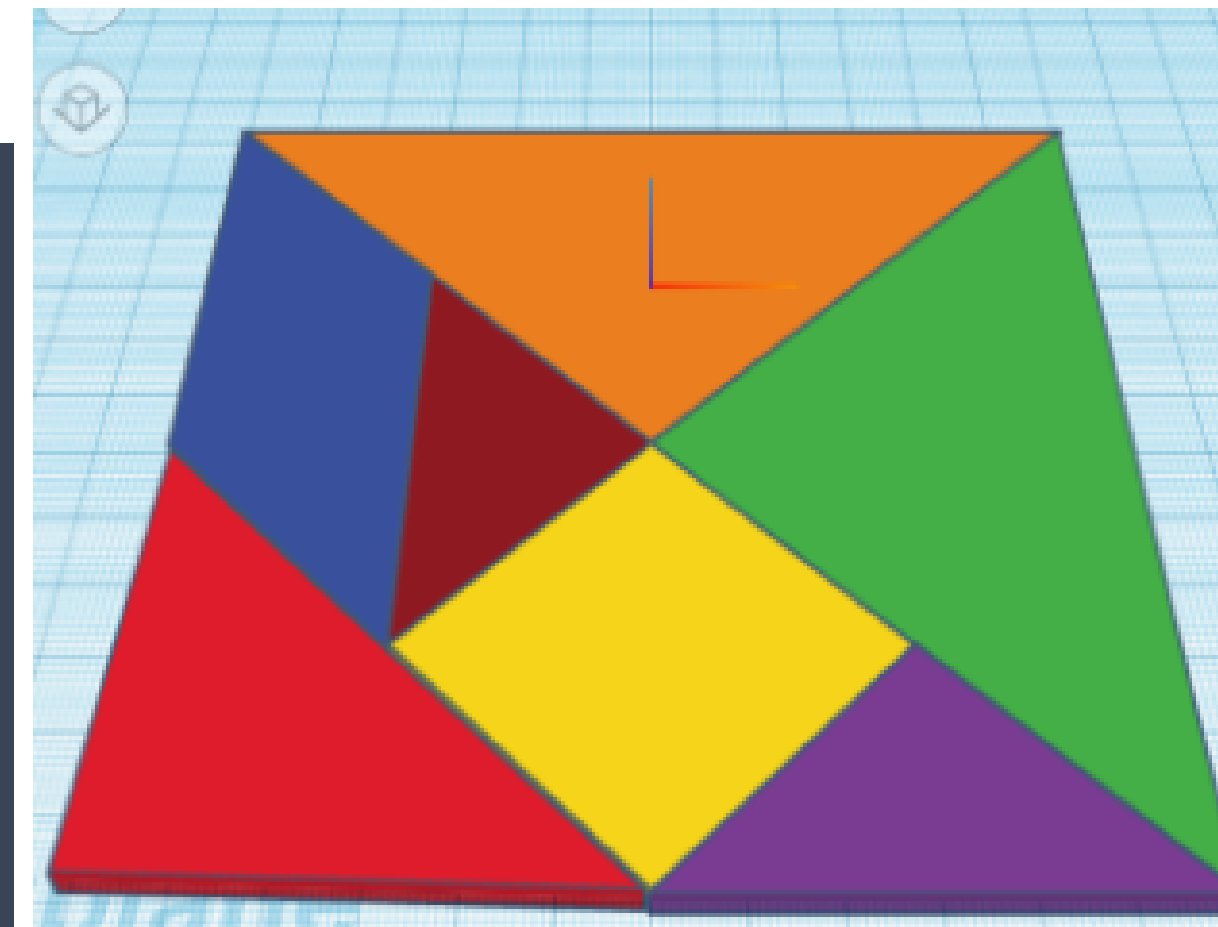


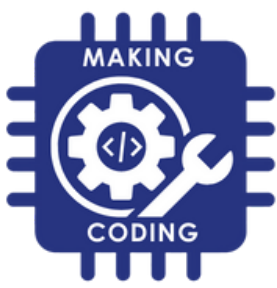
Costruiamo
il Tangram



Progettazione

```
Crea nuovo oggetto T2 ▾  
Aggiungi [Green Triangle] L 20  
Ruota intorno Asse x ▾ di 90 Gradi da perno  
Scala: X: 4 Y: 4 Z: 0.2  
Ruota intorno Asse z ▾ di -47 Gradi da perno  
Spostamento: X: -45 Y: -74 Z: 0  
Scala: X: 1.08 Y: 1 Z: 1
```





Costruiamo il Tangram



Crea nuovo oggetto T3

Aggiungi < L 20

Ruota intorno Asse x di 90 Gradi da perno

Scala: X: 6 Y: 6 Z: 0.2

Imposta colore

Crea nuovo oggetto T3-2

Aggiungi copia dell'oggetto T3

Ruota intorno Asse z di -90 Gradi da perno

Spostamento: X: 30 Y: -30 Z: 0

Crea nuovo oggetto T1

Aggiungi < L 20

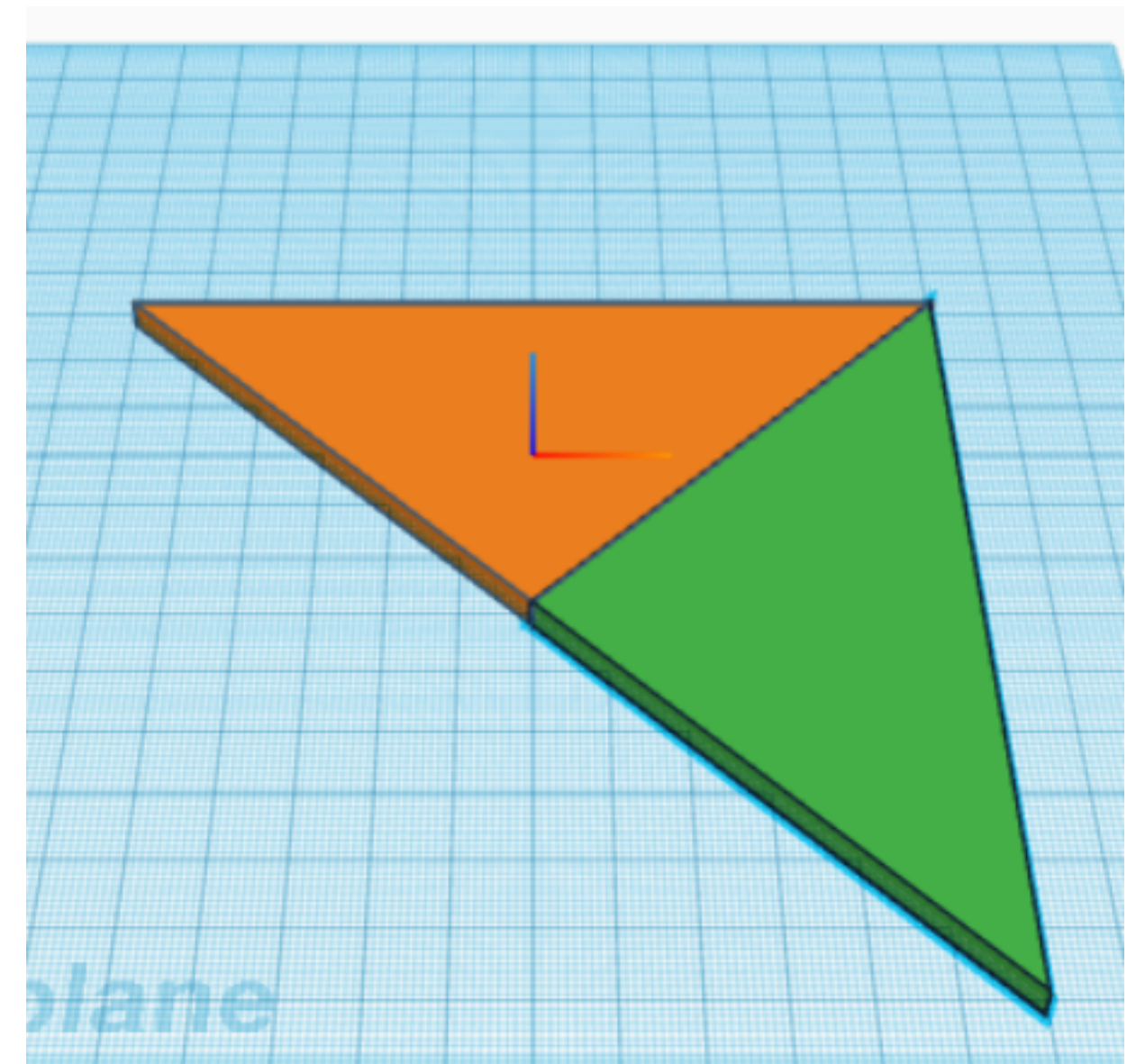
Ruota intorno Asse x di 90 Gradi da perno

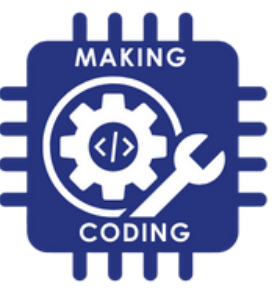
Scala: X: 3 Y: 3 Z: 0.2

Ruota intorno Asse z di 180 Gradi da perno

Spostamento: X: 30 Y: -75 Z: 0

Imposta colore








Costruiamo il Tangram



Crea nuovo oggetto Q



Aggiungi    < P 14 L 14 A 14 bordo 0 Passaggi bordo 10

Ruota intorno Asse z di 45 Gradi da perno

Scala: X: 3 Y: 3 Z: 0.3

Spostamento: X: 0 Y: -60 Z: 0




Crea nuovo oggetto T1-2

Aggiungi copia dell'oggetto T1  

Ruota intorno Asse z di -90 Gradi da perno

Spostamento: X: -45 Y: 45 Z: 0

Crea nuovo oggetto T2

Aggiungi    < L 20

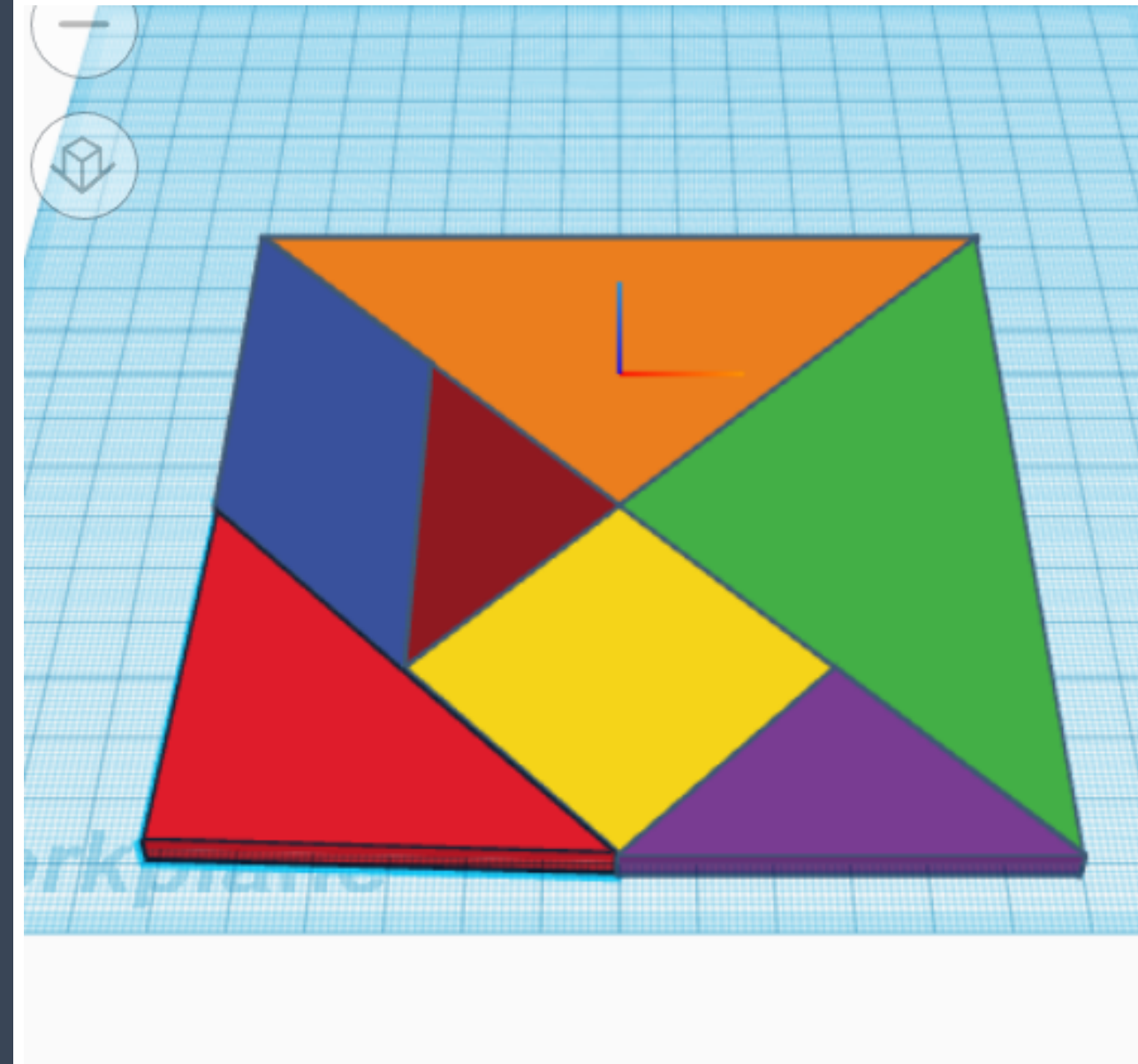
Ruota intorno Asse x di 90 Gradi da perno

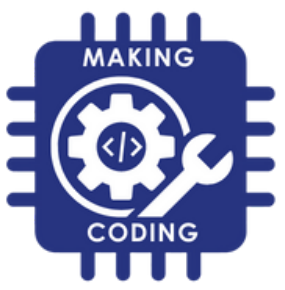
Scala: X: 4 Y: 4 Z: 0.2

Ruota intorno Asse z di -47 Gradi da perno

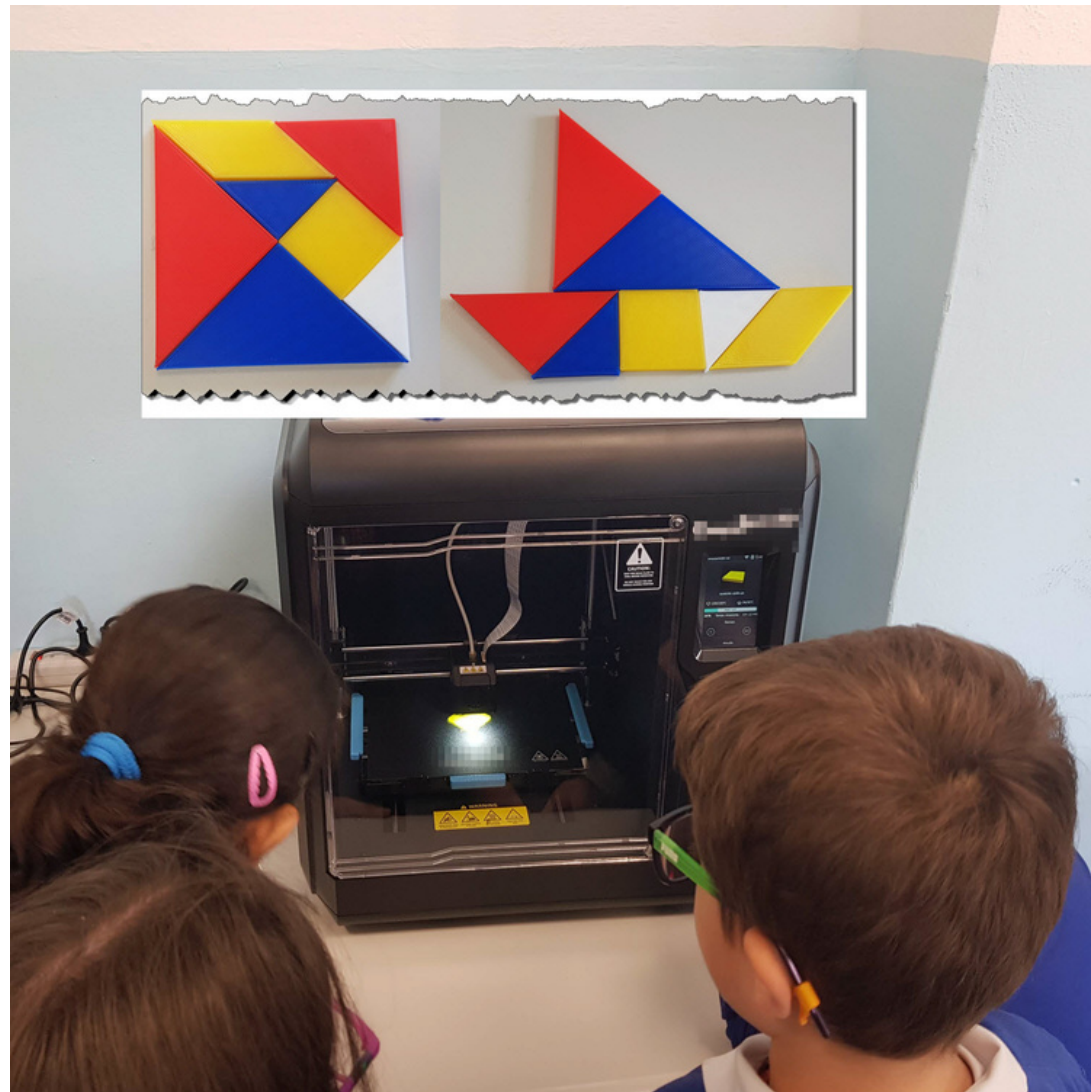
Spostamento: X: -45 Y: -74 Z: 0

Scala: X: 1.08 Y: 1 Z: 1

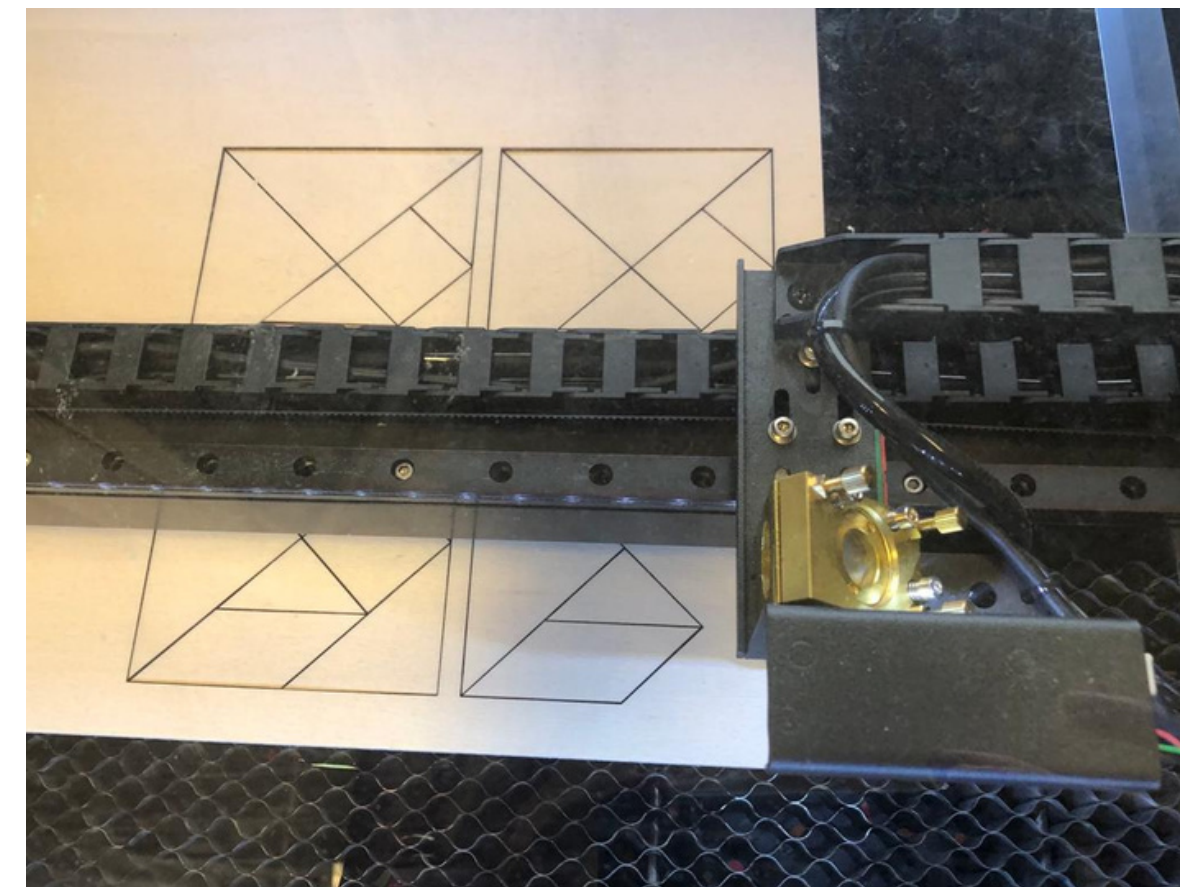




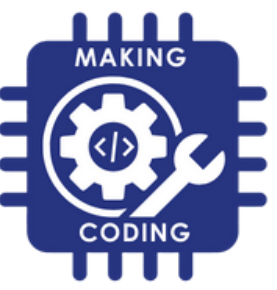
Costruiamo
il Tangram



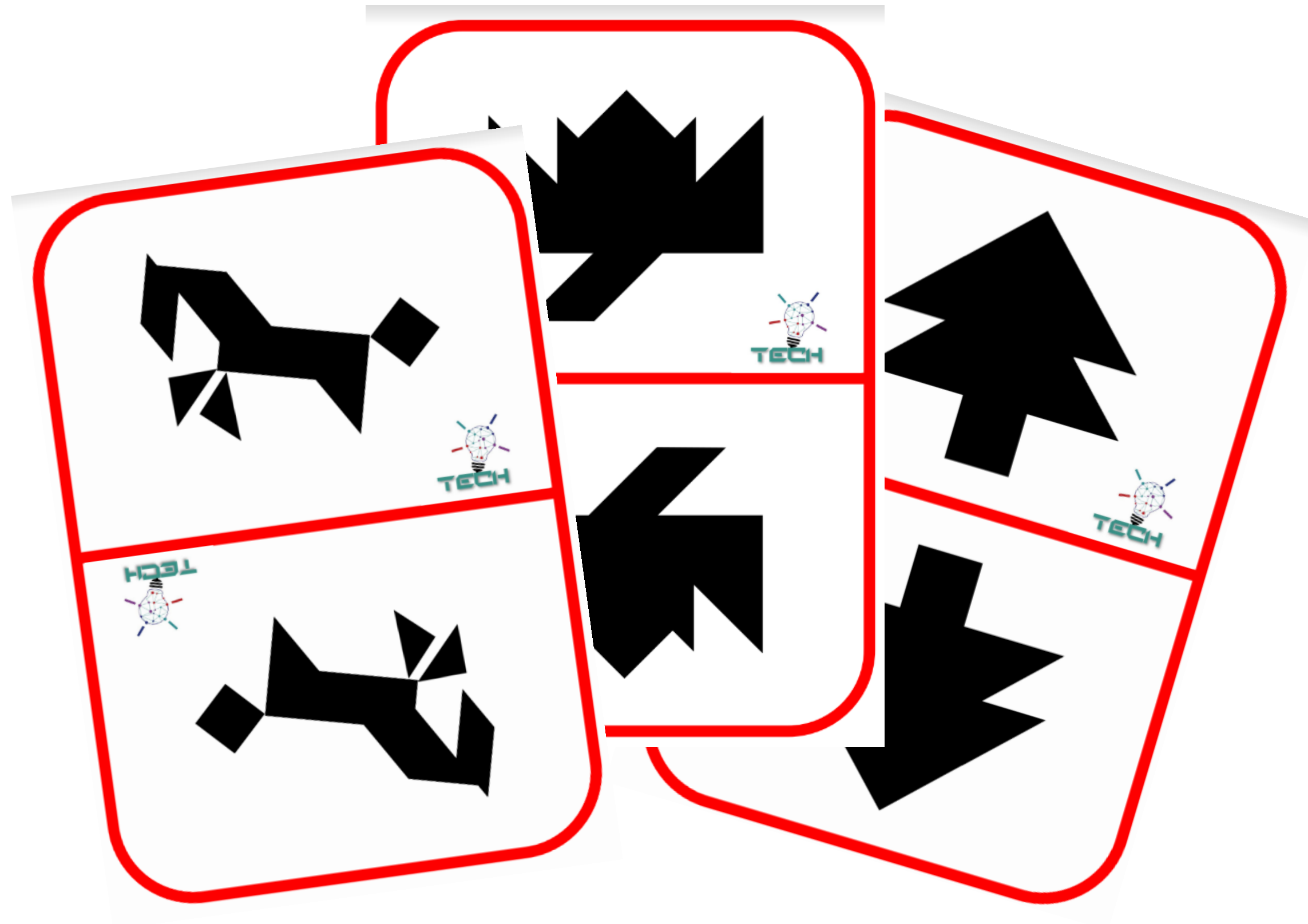
Realizzazione

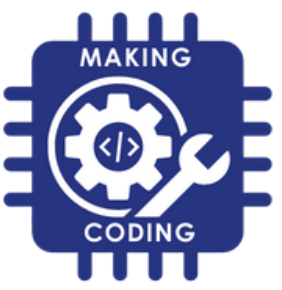


- Equipe
- Formative
- Territoriali

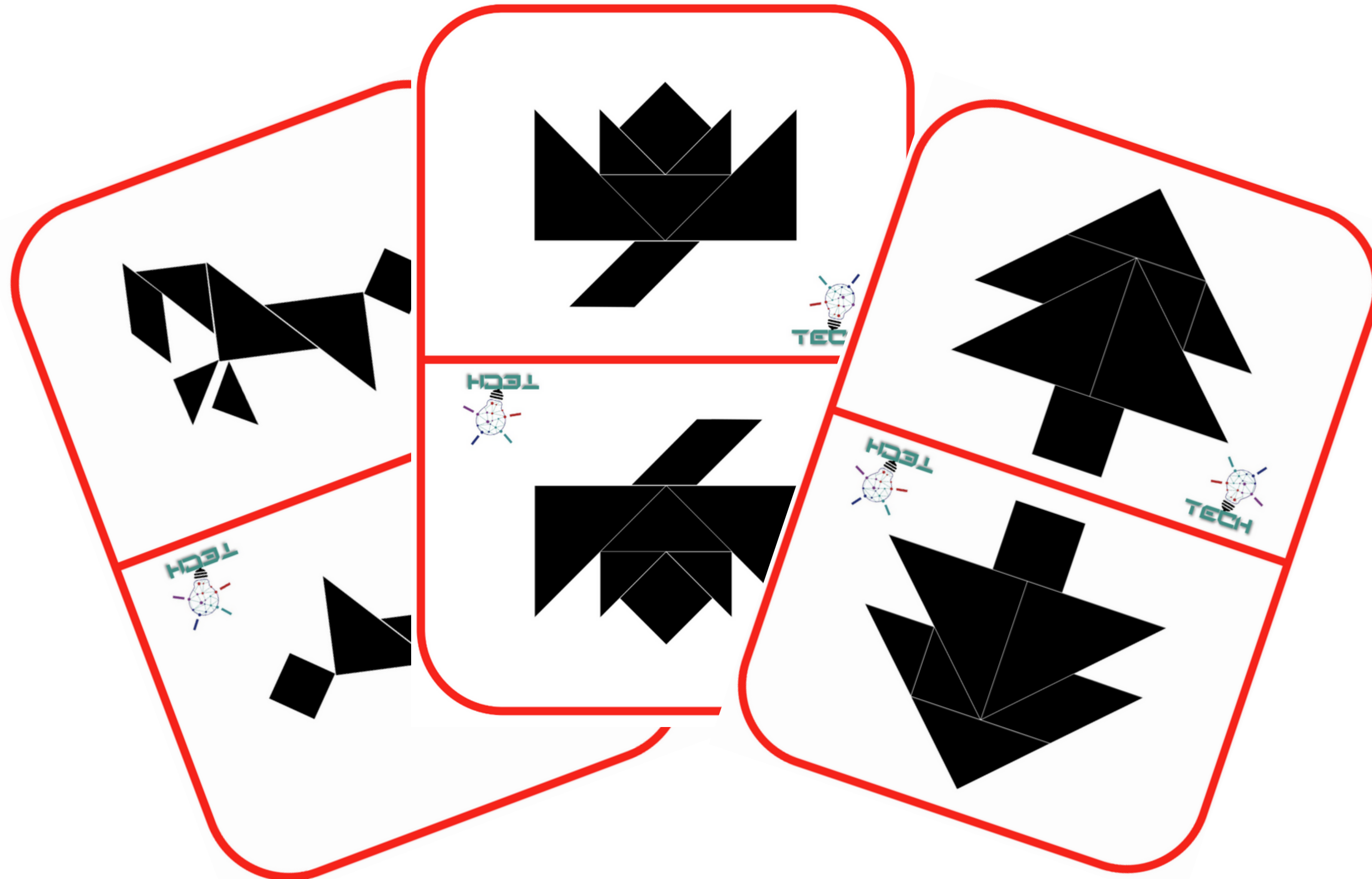


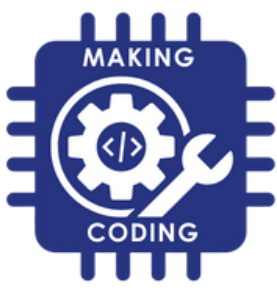
Giochiamo!
carte da gioco
difficult





Giochiamo!
carte da gioco
easy





Bonus Track



Scheda programmazione barchetta Tangram

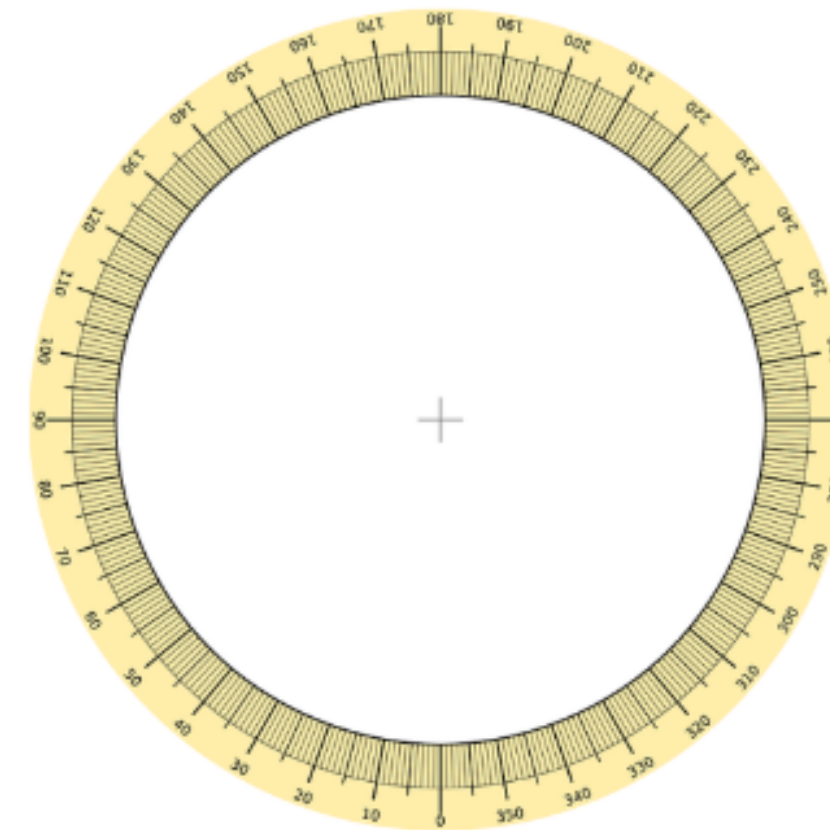


Tangram Builder

There are countless different shapes that can be created using the seven Tangram tiles. What can you come up with?

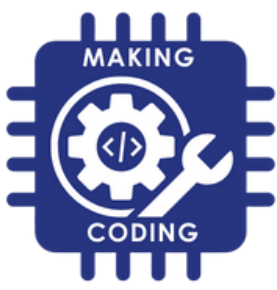
Mathigon

	Ruota a ↻ destra ↺ sinistra di gradi
	Ruota a ↻ destra ↺ sinistra di gradi
	Ruota a ↻ destra ↺ sinistra di gradi
	Ruota a ↻ destra ↺ sinistra di gradi



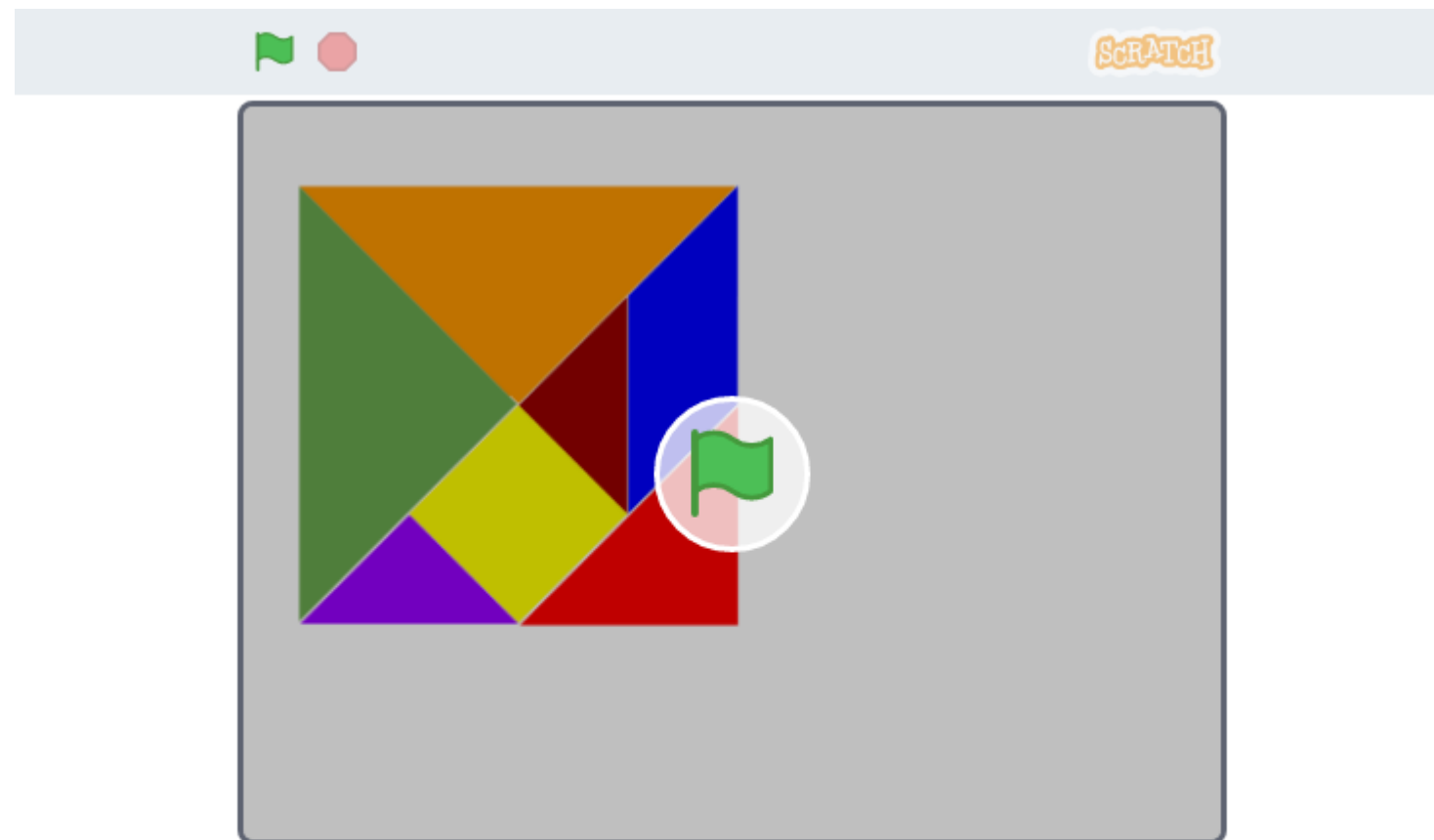
	Ruota a ↻ destra ↺ sinistra di gradi
	Ruota a ↻ destra ↺ sinistra di gradi
	Ruota a ↻ destra ↺ sinistra di gradi



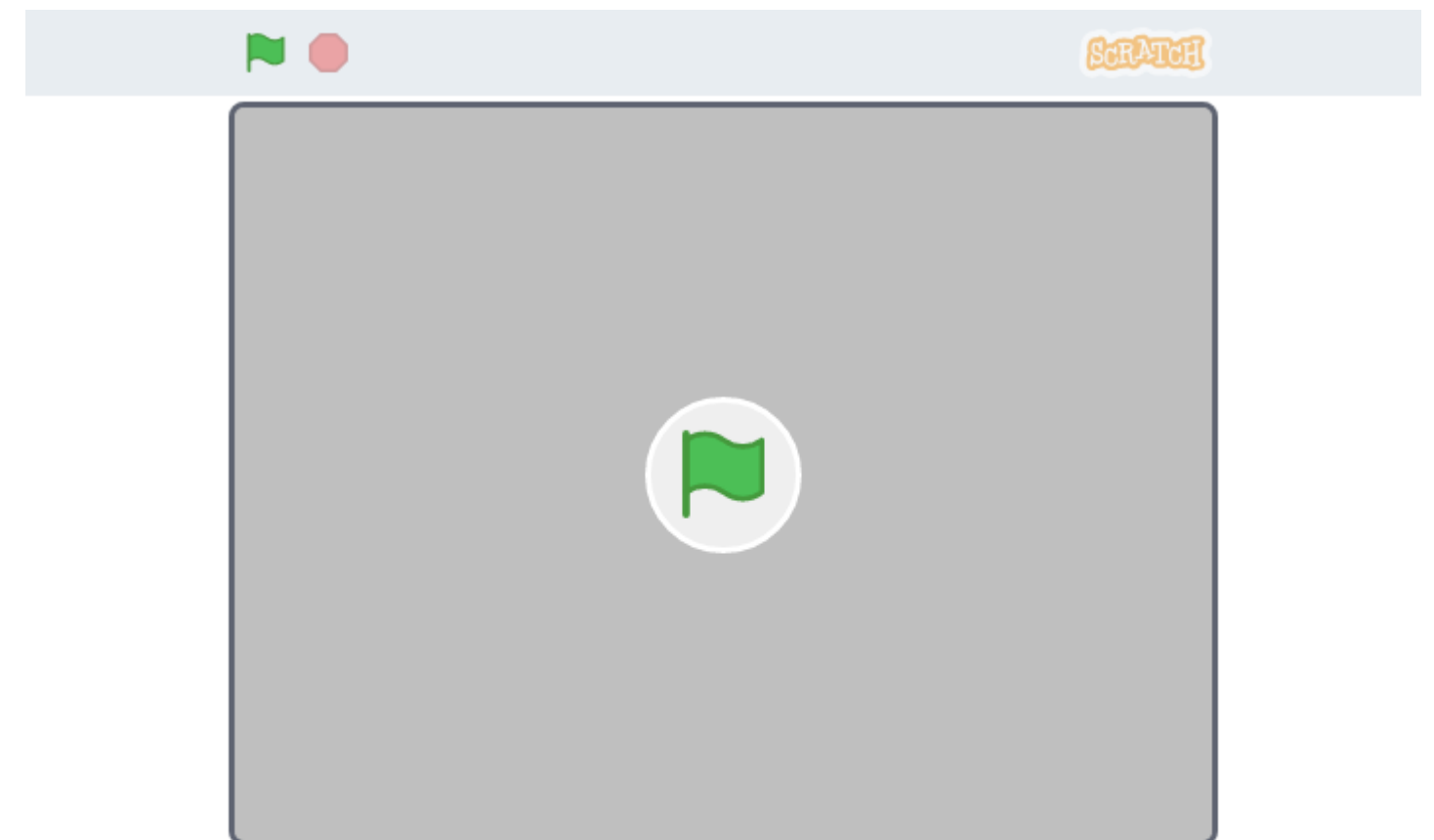


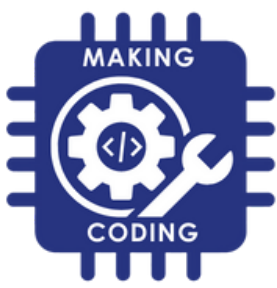
CODING!

EASY

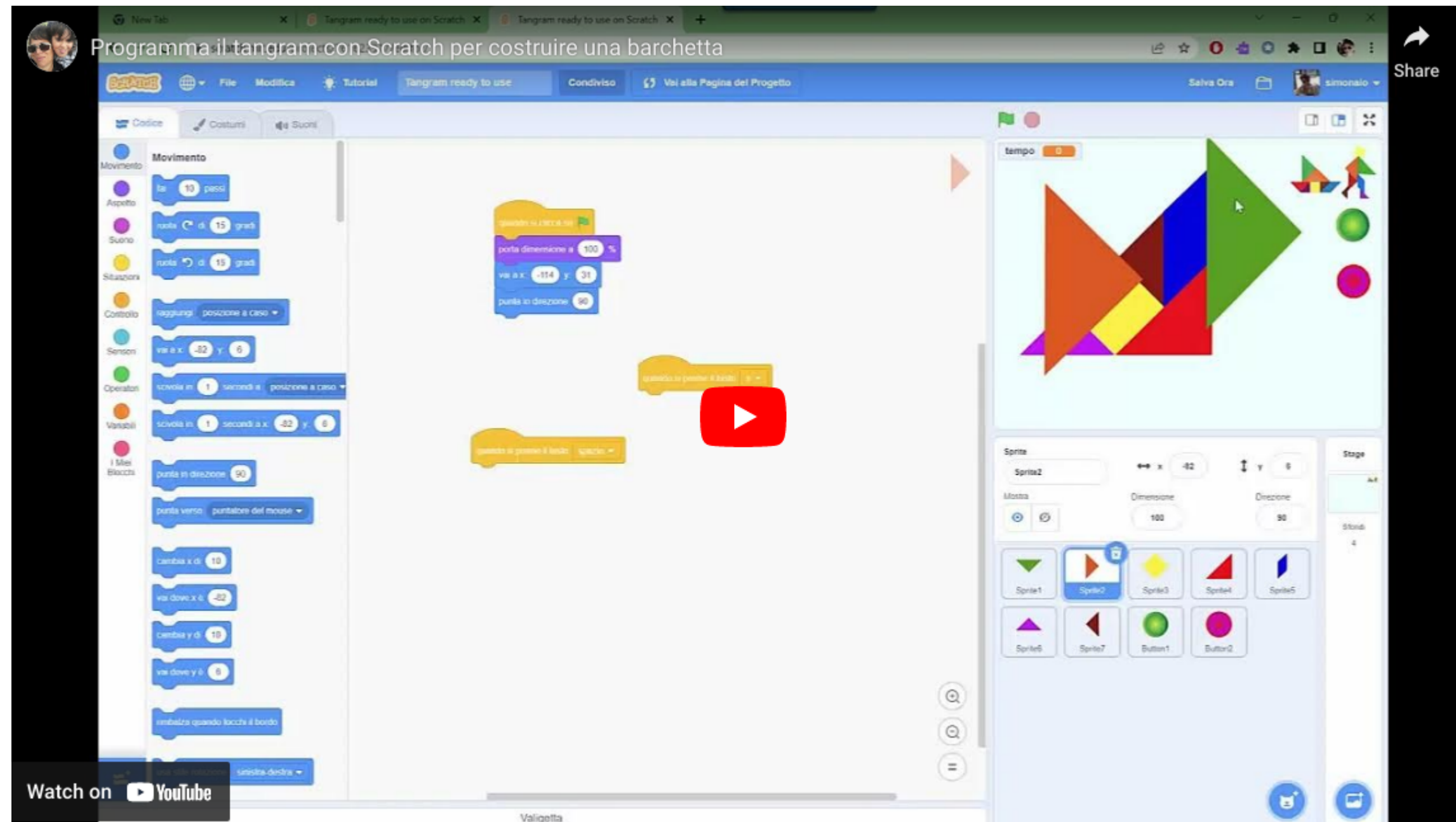


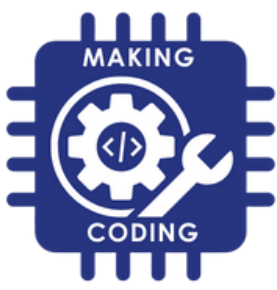
DIFFICULT





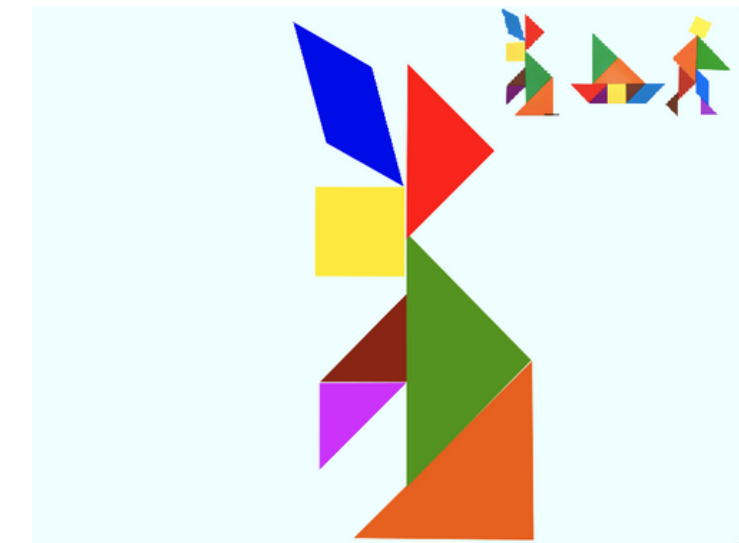
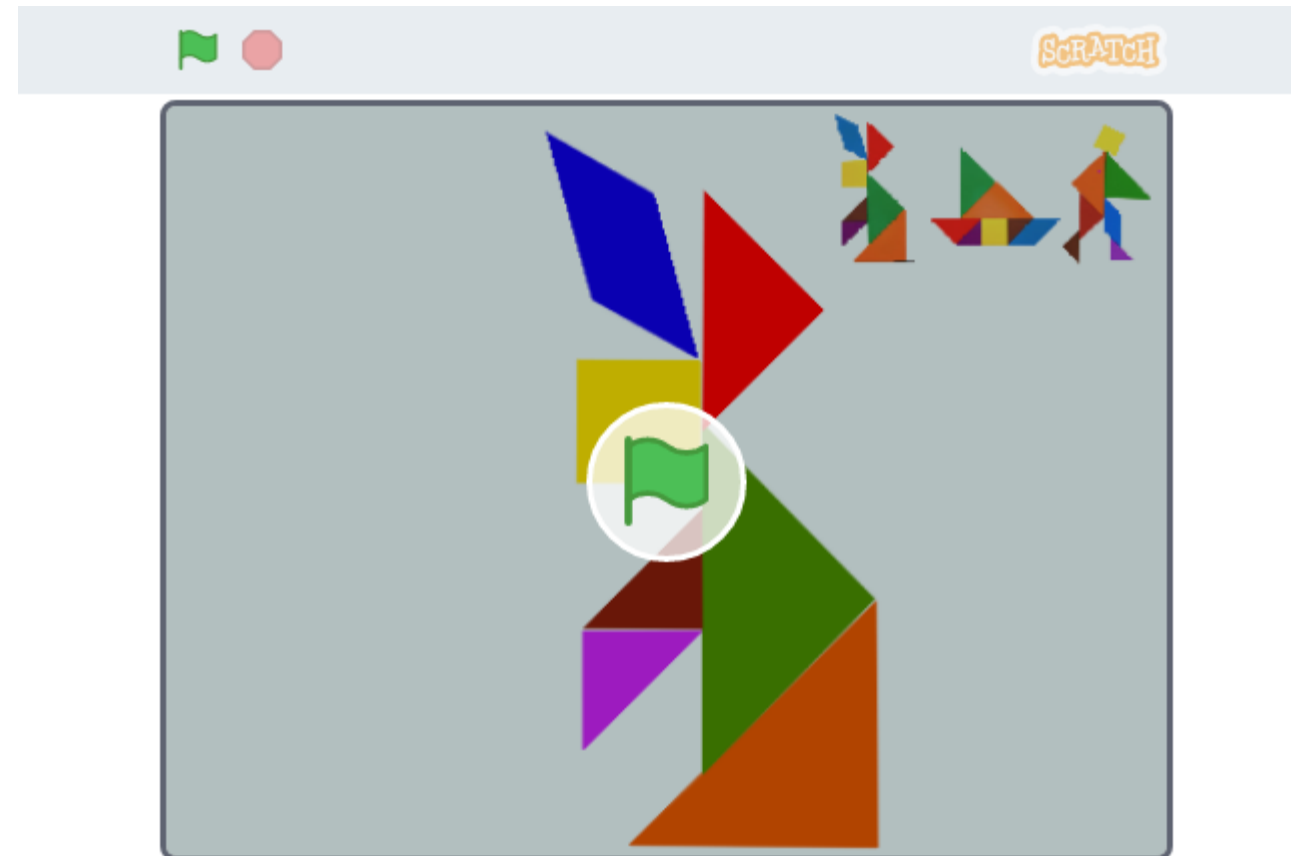
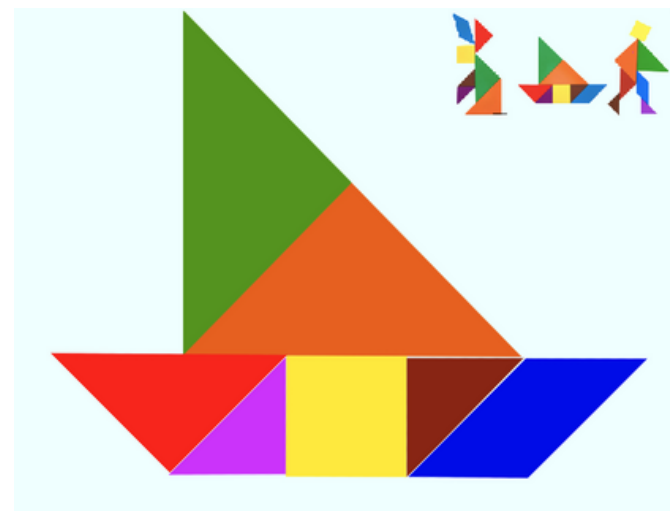
Il video tutorial



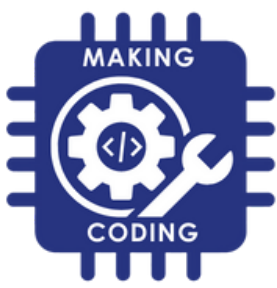


Il risultato atteso

```
quando si clicca su [bandierina]
  porta dimensione a 100 %
  vai a x: -78 y: 40
  punta in direzione 90
  ruota di 90 gradi
  scivola in 2 secondi a x: 1 y: 69
  Muove i pezzi della barchetta
```



```
quando si preme il tasto [c]
  porta dimensione a 100 %
  vai a x: -78 y: 40
  punta in direzione 90
  cambia dimensione di -30
  ruota di 90 gradi
  scivola in 1 secondi a x: 94 y: -49
  Muove i pezzi del coniglio
```

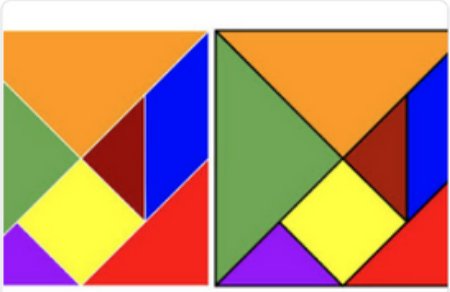




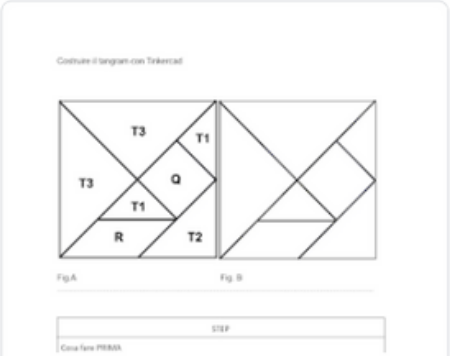
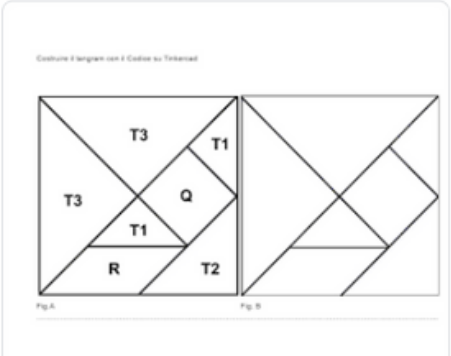
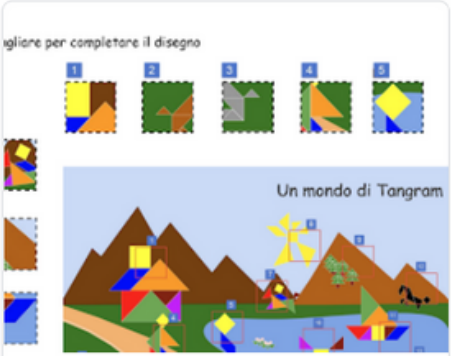



I materiali a disposizione

Cartelle Nome ↓

- Tangram pezzi vettoriale
- Tangram immagini trasp...
- Tangram figure nere
- Tangram da stampare
- Tangram carte da gioco ...
- Tangram carte da gioco g...
- Schede di programmazio...

File

-  Tangram pezzi.jpg
-  Un mondo di Ta...
Paesaggio Tangram 13 b...
-  Un mondo di ...
Paesaggio di Tangram.pdf
-  Un mondo di Ta...
vinci i badge per complet...
Paesaggio di Tangram pe...
-  Clicca sulle immagini per vedere i progetti
LinkUtili.pdf
-  Costruire il tangram con Tokamak
Costruire il tangram con ...
-  Costruire il tangram con il Codice su Tokamak
Costruire il tangram con ...
-  Migliare per completare il disegno
Un mondo di Tangram
Badge per completare il ...