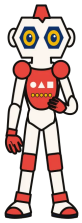
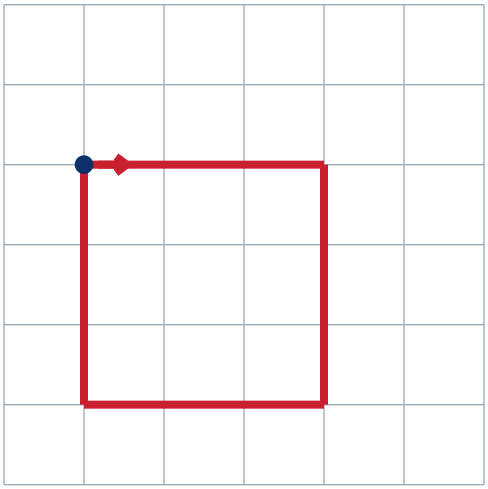
Repeat means less work.



Turtle Trails: trace the route, then shorten its program.

1. Trace it. Then shorten the program.



Start at the dot, facing right.

Each square edge is one step.

forward 3, right, forward 3, right,

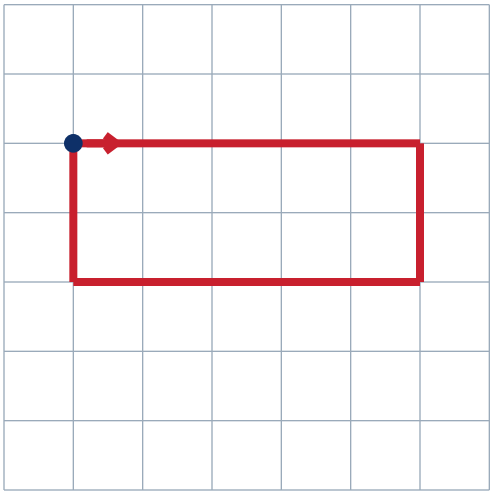
forward 3, right, forward 3, right

repeat ____ [forward ____ , right]

Draw an arrow to show the final direction.

How many blocks? Expanded: ____ Repeat: ____

2. A rectangle needs a different repeating part.



Long side: 5 steps. Short side: 2 steps.

Start at the top-left dot, facing right.

repeat ____ [_____

_____]

Draw the final direction.

Rules: forward 1-5, right 90 degrees, repeat 2-4. No nested repeats.
Cost: each forward, right and repeat is 1 block. Numbers cost 0.
Parent check: repeat 4 [forward 3, right], 8 blocks to 3; facing right.
Rectangle: repeat 2 [forward 5, right, forward 2, right], 5 blocks; facing right.