

Scott builds a pattern using triangles and circles.



a) Draw the next diagram in the pattern.



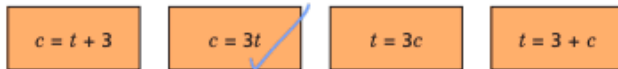
b) Scott records the number of triangles and circles in a table.

Complete the table.

Number of triangles	1	2	3	4	5
Number of circles	3	6	9	12	15

c)  $c$  = number of circles and  $t$  = number of triangles

Circle the formula that describes the pattern.



d) How many circles will there be with 10 triangles?

30

Show your working.

$3 \times 10 = 30$

## Clue 1: Retracing Their Footsteps

Statements from Witnesses	✓ or X
One woman – aged around 35 – disappeared just before the race.	✓
I saw one (fairly short man fleeing) the scene.	X
London, especially Greenwich, is the last place I'd expect this to happen.	✓
My trainers – bought brand new last week – are completely ruined.	✓
The lady, who I suspect is responsible had, short hair.	X
My knees (although not scuffed) still ache from the fall.	✓
I didn't expect – anyone especially not an athlete – to do this.	X
How many suspects (besides myself) will you be interviewing?	✓
I am positive, although I could be mistaken, that I saw the culprit.	✓
The woman – a rather loud lady is surely – responsible.	X
The marshals, who rushed to my aid, were extremely helpful.	✓
I remember bumping into that man before (last Tuesday).	✓

Answer to clue 1: There were 8 ticks so the trainer tangler must wear size 8 shoes.