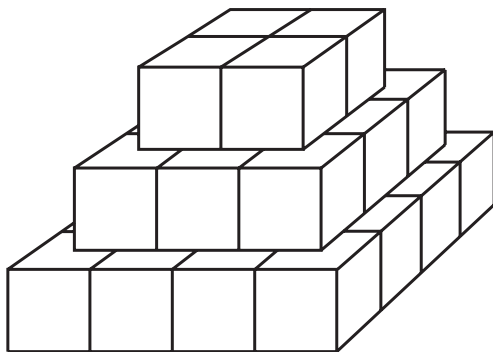


Identifying smaller tasks within a larger problem

Crazy cubes

How many blocks were used to make this shape?



Solution

Identifying smaller tasks within the larger tasks is one way to solve this problem. Work with one layer at a time.

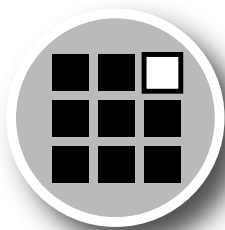
The top layer can be clearly seen and a simple count of the blocks gives the answer of four. The middle layer is not so easily seen, but notice that there are three rows with three blocks in each column, so the middle layer has nine blocks.

The bottom layer is not easily seen, but it is made up of four rows of four blocks in each column, so the bottom layer has 16 blocks.

Add the totals for the three layers, $4 + 9 + 16 = 29$.
29 blocks were used to make the shape.

1 Guessing and checking	6 Checking for relevant and irrelevant information
2 Constructing a table, chart or graph	7 Identifying smaller tasks within a larger problem ✓
3 Drawing a picture or diagram, or making a model	8 Making an organised list to account for all possibilities
4 Acting out the problem	9 Solving a similar or simpler problem
5 Identifying a pattern or using a rule	10 Working backwards

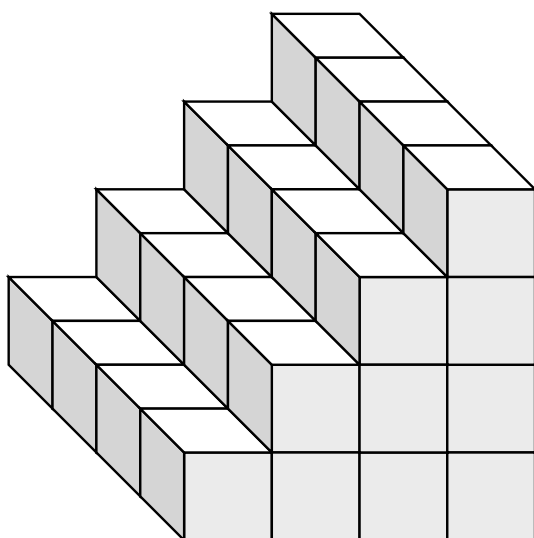
Problem Solving Strategies



Identifying smaller tasks within a larger problem

Have a go!

How many blocks were used to make this shape?



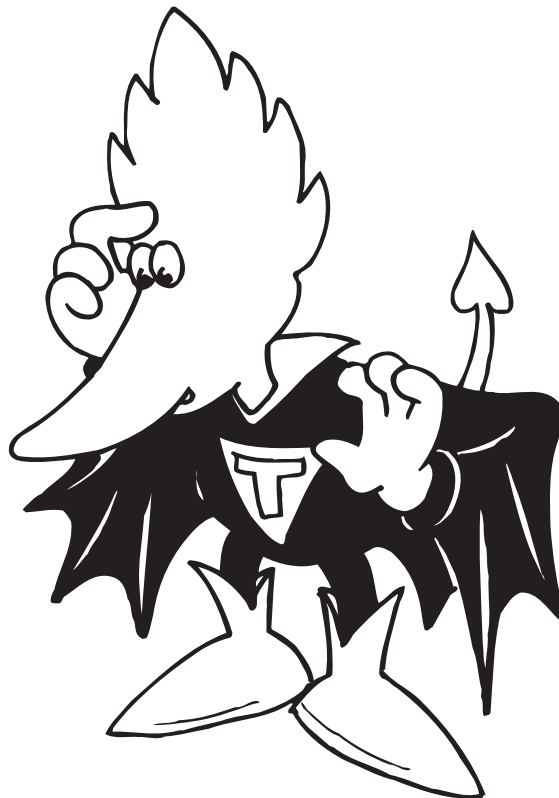
1 Guessing and checking	6 Checking for relevant and irrelevant information
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Problem Solving Tasks

30

Terry's television guide

Using my television guide, name the second longest program.



Time	Channel	Program
6:00 am	T-Rex	Good Morning Fern Valley
7:00 am	T-Rex	News
7:30 am	T-Rex	Totally Tame
8:25 am	T-Rex	News Update
8:30 am	T-Rex	The Land of the Lost
10:30 am	T-Rex	This Was Your Life
11:25 am	T-Rex	Weather Update
11:30 am	T-Rex	Hypotheticals — 'Dinosaur Extinction?'
12:15 pm	T-Rex	Rock Music DTV
12:30 pm	T-Rex	Station closed



Sort all the programs from shortest to longest.

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— Problem Solving Strategies and Tasks —

JIGSAW MATHS 4 PROBLEM SOLVING TASK CHECKLIST

Task	Which strategies used?	Completed and checked (✓)	Task	Which strategies used?	Completed and checked (✓)
1 Trekasaurus			21 Scrambled eggs		
2 Scooters and go-carts			22 Money movers		
3 Paddling plans			23 Ball weight		
4 Rock solid savings			24 Dinosaur dash		
5 Prize picks			25 Carnival cash		
6 Fun 4 us			26 Volcanic Gus		
7 Mystery number			27 Four triangles		
8 Terry's trip			28 Magic square		
9 Super savings			29 Changing money		
10 Sleep over			30 Terry's television guide		
11 Sticky pencil			31 Sporting chance		
12 Dinosaur hunters			32 Play-acting		
13 Create a hexagon			33 Wild wigs		
14 How many?			34 Head banned		
15 Tiling tetrominoes			35 Egg-normous		
16 How many again?			36 Shorts 'n' shirts		
17 Classroom set up			37 Wardrobe worries		
18 Photographic memory			38 Signal flags		
19 Planks			39 Stepping out		
20 Planks and gaps			40 Team ladder		

The strategies are numbered to help you in completing the **Which strategies used?** box in the Task Checklist above. Simply write the numbers of the strategies you used in the space next to the task. Your teacher will tick (✓) the problem when it has been completed and checked.

1 Guessing and checking	6 Checking for relevant and irrelevant information
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