

Problem 1

Isaac begins draining the swimming pool at 1pm. The depth of the water is 1.5 metres in all four corners. By 3pm the depth is down to 120 centimetres. Three hours later Isaac measures the depth at 75 centimetres. He wants to go to bed at 11pm.

Will the pool be empty by then?



Problem 2

Hotshots is the best video game place in town. It charges a \$5 entrance fee and \$2 per game. Gina has a budget of \$48.

How many games can she play?



Problem 3

Dan, the gym instructor, has a new 6 metre climbing rope to install for the confidence course. He will use 50 centimetres tying the rope to the wooden beam, and 15 centimetres for every knot he puts in the rope. The height from the beam to the ground is 3.7 metres.

How many knots can Dan put in the rope so it just touches the ground?



Problem 4

A single supermarket trolley is 900 millimetres long.

A stack of five trolleys is 2.5 metres long.

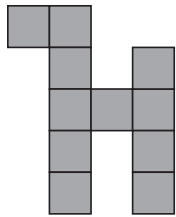
How long would a stack of ten trolleys be?

The answer is not 5 metres long)

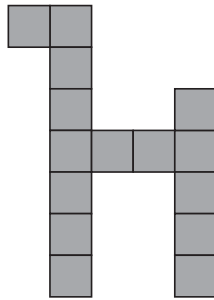


Problem 5

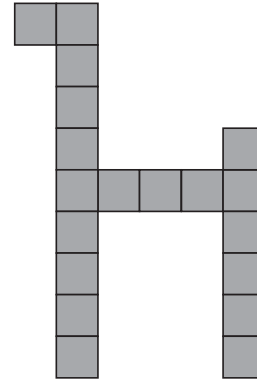
Here are some pictures of Linda the Llama.



Aged 1 year



Aged 3 years



Aged 5 years

How many squares will Linda be when she is 25 years old? Another picture has Linda made of 164 squares. How old is she when that photograph is taken?

Amy and Matiu both look at the same picture of Linda.

"I worked out the number of squares like this. Add one to her age and multiply by four. Then add three. That's the number of squares she is made of," says Amy.

"I noticed that she is five times her age minus 21," says Matiu.

Both people are right. How old is Linda in the picture?

Problem 6

Hirini's job pays \$15 per hour and a \$25 bonus for early starts during the week.

Penny's job pays \$17 per hour but it costs her \$18 for travel during the week.

Both people earn the same amount, after costs, during the week for the same number of hours.

How many hours did they work?

