

Calculating 1, Adding and subtracting negative numbers in context, and large numbers

Shape-man

How this will help your child

- This activity will help your child to add and subtract large numbers and recognize what happens when they cross zero and go into negative numbers.
- It will also draw on their place value knowledge when adding and subtracting amounts.

Words and phrases to use

negative, minus, across zero, add, subtract, thousand, hundred, positive

You will need

- Scissors
- A pencil
- Plain paper

During the activity, look at what your child can do

- Mentally add and subtract using jottings to support their thinking.
- Cross over zero as they subtract large numbers.

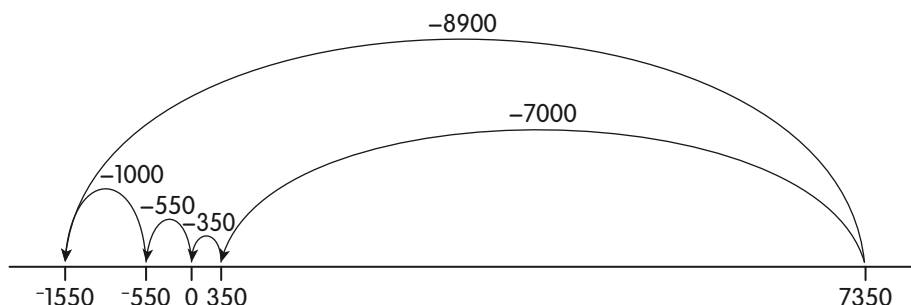
What to do

- Cut out the cards from the Shape-man sheet, shuffle them and lay them face down.
- Explain that, in an online game, Shape-man goes round collecting striped shapes and trying not to bump into any spotted shapes. He gains points for each striped shape collected, but he loses points for every spotted shape he bumps into.

- Ask your child to turn over a card, look at the table showing how many points they win (+) or lose (–) and keep a running total of their score, e.g. if they turn over a striped triangle and a striped circle, their score so far would be $1000 + 6350 = 7350$. If they then turn over a spotted pentagon next, their score would be $7350 - 8900 = -1550$.
- Encourage your child to use a blank number line to support them in their calculations and to think about using zero and any other numbers as stepping stones to make their calculations easier. Ask them to explain their thinking. (Please note: your child may use a different method.) **1**
- Continue until you have five cards turned over in front of your child and they have calculated their total final score.
- Turn five cards over yourself and ask your child to work out your total score. Talk about who has the higher score and how much higher it is.

Next steps ...

- Change the values in the table so that each striped shape is worth a different number of points and change how much the spotted shapes are worth in terms of losing points. Repeat the activity.
- Ask your child to design a board game with some squares winning points and some losing points. Play the game together, keeping a running total of scores.



7350 – 8900 can be broken down into several steps:

First take away 7000 to reach 350. Then takeaway 350 to reach zero.

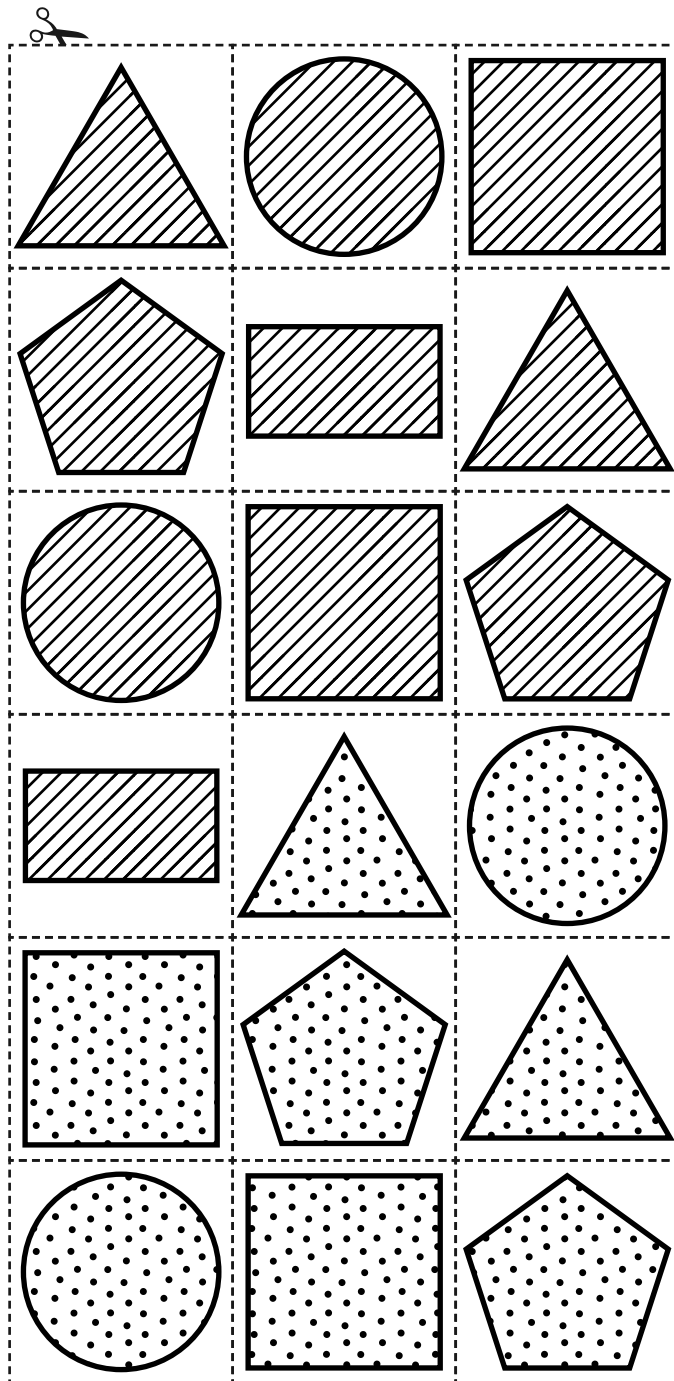
Then takeaway 550 to reach -550, then take away the remaining 1000 to reach -1550. **1**

Name

Date / /

7

Shape-man



Shape	Points
	+ 1000
	+ 2750
	+ 5000
	+ 6350
	+ 10 000
	- 3000
	- 4500
	- 6225
	- 8900

Blank number line
