Finding pairs of values – reasoning and problem solving

Razia is finding possible values for h and i.

$$3h + 11i = 60$$

If h equals 9, i must equal 33.

Is Razia correct? Explain your answer.

Reasoning 1

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Razia is incorrect because…

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If h equals 9, i must equal 33.

Is Razia correct? Explain your answer.

Razia is incorrect because 3 x 9 = 27 and 60 – 27 = 33. 33 ÷ 11 = 3 so i = 3.

Reasoning 2

If a is an odd number and b is 50, which of these could be true?

A. $2a + 3b = 156$

B. $a + a - 3b = 4$

C. $4a + 5b = 258$

D. $2a \div 3b = 2$

Convince me.

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A and B could be true. For example: A. $a = 3$; B. $a = 77$

Problem Solving 1

Sweety Treaty sell 2 medium sweet boxes and 4 small sweet boxes for £36. What possible prices can you find for each sweet box?

$$2m + 4s = £36$$

m	s

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Various answers, for example:

$m = 8, s = 5$; $m = 9, s = 4.5$; $m = 10, s = 4$

Star Challenge Time!

- Go to Maths – Algebra Part 4 and choose your star challenge. As usual, the first page will give you a challenge that is slightly easier than the introduction challenge, the second page will give you a challenge that is similar to the questions in the presentation and the third page will give you challenges that will stretch you further. You can