**equations**

**simultaneous**

**B**

**Pythagroas**

**GRADE BUSTER**

*Your ‘5 a day’ mathematical workout*

1. Solve the following pair of simultaneous equations:

a) x + 3y = 22 b) p + 2q = 23 c) a – 4b = 10

 x + y = 10 2p - q = 26 3a - 2b = 45

2. Solve the following pair of simultaneous equations:

a) 4x + 3y = 13 b) 5p + 2q = 23 c) 5a = 2b +15

 x + 2y = 2 3p - 5q = -11 4a - b = 6

3. Find 3 different pairs of simultaneous equations with a solution x > y.

*2x + y = 15 ➀*

*3x – 4y =17 ➁*

 *4 x ➀: 8x + 4y = 60 ➂*

 *➂- ➁: 5x = 43*

 *x = 43 ÷ 5 = 8.6*

*Sub x=8.6 in ➀: 2 x 8.6 + y = 15*

 *17.2 + y = 15*

 *y = -2.2*

*x = 8.6*

*y = 2.2*

4. i) Explain what is wrong with the following solution:

Solve the pair of simultaneous equation:

 2x + y = 15

 3x - 4y = 17

ii) Find the correct solution

5) A bag of 10 nails and 8 screws weighs 50g.

 Another bag of 15 nails and 10 screws weighs 70g.

 Bob thinks that a nail must weigh more than a screw.

 Do you agree? Explain your answer.

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| Qu |  | ☺ | ☹ |
| 1, 3 & 4 | I can solve simple simultaneous equations |  |  |
| 2 & 3 | I can solve more complex simultaneous equations |  |  |
| 5 | I can solve problems using simultaneous equations |  |  |

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| Top tips I must remember for the exam: |
| ☺☺☺ |
| Types of questions I need to practise more: |
| ☺☺☺ |