**Inequalities**

**EXPRESSIONS**

**equations &**

**C**

**Pythagroas**

**GRADE BUSTER**

*Your ‘5 a day’ mathematical workout*

1. Solve the following linear equations:

a) 5x + 4 = 39 b) 4(y + 2) = 36 c) 3p - 16 = p + 4

2. Solve the following inequalities:

a) 4x ≤ 20 b) 5x + 4 ≤ 39 c) 4y - 6 ≤ 18

3. Find 3 different inequalities with the solution represented on the number line:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |  |

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

*x=4: 4² + 4 x 4 = 32 Too low*

*x=5: 5² + 4 x 5 = 45 Too high*

*x=4.5: 4.5² + 4 x 4.5 = 38.25 Too high*

*x=4.4: 4.4² + 4 x 4.4 = 36.96 Too high*

*x=4.3: 4.3² + 4 x 4.3 = 35.69 Too high*

*x=4.2: 4.2² + 4 x 4.2 = 34.44 Too low*

x = 4.3 (to 1 dp)

Use trial and improvement to solve   
x² + 4x = 35.  
Give your answer to 1dp

ii) Find the correct solution

5) Bob is trying to find a number. He knows that if he adds the cube of the number to twice the number he gets the answer 47.

Using trial and improvement, find Bob’s number to one decimal place.

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| Qu |  | ☺ | ☹ |
| 1 | I can solve linear equations |  |  |
| 2 & 3 | I can solve inequalities with one variable |  |  |
| 4 | I can solve equations using trial and improvement |  |  |

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