Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This is your maths pack for the week commencing 04.05.20. I have tried to put as much help on it as possible. If you have any problems please either phone the school or email: [mgater@suttonhouse.org.uk](mailto:mgater@suttonhouse.org.uk) me and I will call you and try to guide you through.

**Solving equations**

|  |  |  |
| --- | --- | --- |
| Example 1: Solve the equation y + 9 = 13 | | |
| 1 | You need to get y on its own on one side of the equation so subtract 9 from each side | y + 9 = 13 |
| 2 | Always do the same to both sides of the equation | y – 9 = 13 - 9 |
| 3 | Then do the calculation to find the solution | y = 13 – 0  y = 4 |

**Your turn**

|  |  |
| --- | --- |
| x + 4 = 9 | 45 = x + 6 |
| 6 – x = 3 | 42 = 50 - x |
| p + 5 = 10 | 51 – y = 14 |
| 82 = 83 - t | S + 6 = 94 |

**Two step equations**

Some equations need to be solved in two steps, you need to do this in the right order to get a correct answer.

|  |  |  |
| --- | --- | --- |
| Example 1: Solve the equation 3n + 4 = 19 | | |
|  | 3n + 4 means take the value of n and then   1. Multiply it by 3 2. Add 4   To get n on its own you have to undo these steps (do it in the opposite order) | |
| 1 | First subtract 4 from both sides | 3n + 4 = 19  3n + 4 – 4 = 19 – 4  3n = 15 |
| 2 | Then divide both sides by 3 | 3n = 15  3n ÷ 3 = 15 ÷ 3  n = 15 ÷ 3  n = 5 |
| 3 | Check your answer by putting the value of n into the equation | 3n + 4 = 19  3 x 5 + 4 = 19  15 + 4 = 19 |

**Your turn**

|  |  |  |
| --- | --- | --- |
| Solve the following equations | | |
| 4x + 8 = 40 | 12x + 17 = 65 | 11x + 3 = 135 |
| 3p – 6 = 24 | 4r – 12 = 20 | 7z – 36 = 48 |
| 8 + 2x = 30 | 32 = 4 + 4x | 41 = 11 + 10x |

**Writing formulas**

|  |  |  |
| --- | --- | --- |
| Example 1: write a formula for a in terms of b if: | | |
| 1 | a is 2 less than b | a = b - 2 |
| 2 | a is double b | a = 2b |

**Your turn**

|  |  |  |
| --- | --- | --- |
| Write a formula for a in terms of b if: | | |
| a is 2 more than b | a is the same as b | a is half of b |

|  |  |  |
| --- | --- | --- |
| Example 2: I have m coins and my friend has n coins. I have three times as many coins as him. Write a formula for the number of coins I have | | |
| 1 | My friend has n coins | n |
| 2 | I have three times as many - so you need to multiply the amount by 3 | n x 3 = 3n |
| 3 | I have m coins - so you need to put m equal to 3n | m = 3n |

**Your turn**

|  |
| --- |
| Kym has a tin containing n biscuits. She eats two of the biscuits. Write a formula for m, the number of biscuits she has left. |
| Krissie has r crayons. A friend gives her 5 more crayons. Write a formula for s, the number of crayons Krissie now has |
| Pat buys x balloons for his party. He pops 1 balloon before the party starts. Write a formula for y, the number of balloons he has left for the party. |

**This pack should be completed and returned for marking by 18th May 2020**