

## Sample formatting using multienumerate

Sometimes we want to typeset the solutions to exercises. This is easy to do using the `multienumerate` environment.

### Answers to All Exercises

- |   |  |                                     |                    |
|---|--|-------------------------------------|--------------------|
| 1. Not  | 2. Linear  | 3. Not                              | 4. Quadratic       |
| 5. Not  | 6. Linear  | 7. No; if $x = 3$ , then $y = -2$ . |                    |
| 8. $(x_1, x_2) = (2 + \frac{1}{3}t, t)$ or $(s, 3s - 6)$  | 9. $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$ |                                     |                    |
| 10. $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$ or $(s, t, u, \frac{1}{4} - s + \frac{5}{4}t + \frac{3}{4}u)$ |  |                                     |                    |
| 11. $(2, -1, 3)$  | 12. None   | 13. $(2, 1, 0, 1)$                  | 14. $(0, 0, 0, 0)$ |

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We can also enumerate the items using an even-only or odd only counter.

### Answers to Even-Numbered Exercises

- |   |   |                                      |                    |
|---|---|--------------------------------------|--------------------|
| 2. Not  | 4. Linear   | 6. Not                               | 8. Quadratic       |
| 10. Not   | 12. Linear  | 14. No; if $x = 3$ , then $y = -2$ . |                    |
| 16. $(x_1, x_2) = (2 + \frac{1}{3}t, t)$ or $(s, 3s - 6)$   | 18. $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$ |                                      |                    |
| 20. $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$ or $(s, t, u, \frac{1}{4} - s + \frac{5}{4}t + \frac{3}{4}u)$ |   |                                      |                    |
| 22. $(2, -1, 3)$  | 24. None  | 26. $(2, 1, 0, 1)$                   | 28. $(0, 0, 0, 0)$ |

### Answers to Odd-Numbered Exercises

- |   |   |                                      |                    |
|---|---|--------------------------------------|--------------------|
| 1. Not  | 3. Linear   | 5. Not                               | 7. Quadratic       |
| 9. Not  | 11. Linear  | 13. No; if $x = 3$ , then $y = -2$ . |                    |
| 15. $(x_1, x_2) = (2 + \frac{1}{3}t, t)$ or $(s, 3s - 6)$   | 17. $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$ |                                      |                    |
| 19. $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$ or $(s, t, u, \frac{1}{4} - s + \frac{5}{4}t + \frac{3}{4}u)$ |   |                                      |                    |
| 21. $(2, -1, 3)$  | 23. None  | 25. $(2, 1, 0, 1)$                   | 27. $(0, 0, 0, 0)$ |

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Sometimes we want to create sublists which are enumerated using an alpha counter.

- Which of the following numbers is the solution of the equation  $x + 3 = 7$ :
  - 1
  - 2
  - 3
  - 4
- The value of  $\log_2 8$  is:
  - 1
  - 1
  - 3
  - 3

## Answers to All Exercises

1. Not
2. Linear
3. Not
4. Quadratic
5. Not
6. Linear
7.  $(x_1, x_2) = (2 + \frac{1}{3}t, t)$  or  $(s, 3s - 6)$
8.  $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$
9.  $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$   
or  $(s, t, u, \frac{1}{4} - s + \frac{3}{4}t + \frac{3}{4}u)$
10.  $(2, -1, 3)$
11. None
12.  $(2, 1, 0, 1)$
13.  $(0, 0, 0, 0)$
14. Not
15. Linear
16. Not
17. Quadratic
18. Not
19. Linear
20.  $(x_1, x_2) = (2 + \frac{1}{3}t, t)$  or  $(s, 3s - 6)$
21.  $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$
22.  $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$   
or  $(s, t, u, \frac{1}{4} - s + \frac{3}{4}t + \frac{3}{4}u)$
23.  $(2, -1, 3)$
24. None
25.  $(2, 1, 0, 1)$
26.  $(0, 0, 0, 0)$
27. Not
28. Linear
29. Not
30. Quadratic
31. Not
32. Linear
33.  $(x_1, x_2) = (2 + \frac{1}{3}t, t)$  or  $(s, 3s - 6)$
34.  $(x_1, x_2, x_3) = (2 + \frac{5}{2}s - 3t, s, t)$
35.  $(x_1, x_2, x_3, x_4) = (\frac{1}{4} + \frac{5}{4}s + \frac{3}{4}t - u, s, t, u)$   
or  $(s, t, u, \frac{1}{4} - s + \frac{3}{4}t + \frac{3}{4}u)$
36.  $(2, -1, 3)$
37. None
38.  $(2, 1, 0, 1)$
39.  $(0, 0, 0, 0)$

## Multiple Choice

1. Which of the following numbers is the solution of the equation  $x + 3 = 7$ :  
(a) 1      (b) 2      (c) 3      (d) 4
2. The value of  $\log_2 8$  is:  
(a) 1      (b) -1      (c) 3      (d) -3
3. Which of the following numbers is the solution of the equation  $x + 3 = 7$ :  
(a) 1      (b) 2      (c) 3      (d) 4
4. The value of  $\log_2 8$  is:  
(a) 1      (b) -1      (c) 3      (d) -3
5. Which of the following numbers is the solution of the equation  $x + 3 = 7$ :  
(a) 1      (b) 2      (c) 3      (d) 4
6. The value of  $\log_2 8$  is:  
(a) 1      (b) -1      (c) 3      (d) -3