Make it Linear!

**Patterns and Relations**

**Unit 1 Line Master 5a**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task 1**  Is the relation linear? Explain how you know.   |  |  | | --- | --- | | ***x*** | ***y*** | | 1 | 2 | | 2 | 2 | | 3 | 2 | | 4 | 2 | | **Task 2**  Is the relation linear? Explain how you know.   |  |  | | --- | --- | | ***x*** | ***y*** | | 1 | 6 | | 3 | 10 | | 4 | 12 | | 5 | 14 | |
| **Task 3**  Does this represent  a linear relation? Explain how you know.  You get paid $15 an hour. | **Task 4**  Explain how you know this relation isn’t linear,  then change it so it is.   |  |  | | --- | --- | | ***x*** | ***y*** | | 1 | 12 | | 3 | 4 | | 4 | 2 | | 2 | 8 | |

Make it Linear! (cont’d)

**Patterns and Relations**

**Unit 1 Line Master 5b**

|  |  |
| --- | --- |
| **Task 5**  Does this equation represent  a linear relation? Show how you know.  *y* = 3*x* – 1 | **Task 6**  Two ordered pairs are given. Write at least 2 more pairs  so that the set represents  a linear relation. Show your work.  (2, 5) (5, 11) |
| **Task 7**  Make a linear relation  with the following condition:  Every time the *x*-value increases by 1, the *y*-value decreases by 3.  Express the relation as a table of values and an equation. | **Task 8**  How do you know the relation in this graph is not linear? Change the graph so it is linear. |

Make it Linear! (cont’d)

**Patterns and Relations**

**Unit 1 Line Master 5c**

|  |  |
| --- | --- |
| **Graph to use for  Task 8 solution** | **Graph to use for  Task 8 solution** |
| **Graph to use for  Task 8 solution** | **Graph to use for  Task 8 solution** |