

True or False?

**Parallel and Perpendicular Lines**

For each statement, circle the correct response.

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| --- | --- | --- | --- |
| **1** | The lines with equations $y=-2x+1$ and $y=-2x+7$ are parallel to each other | True | False |
|  |  |  |  |
| **2** | Two straight lines are parallel if their gradients multiply to give $-1$ | True | False |
|  |  |  |  |
| **3** | The point $(2, 3) $lies on the line with equation $y=\frac{1}{2}x+2$ | True | False |
|  |  |  |  |
| **4** | The lines with equations $y=3x-5$ and $y=5-3x$ are perpendicular to each other | True | False |
|  |  |  |  |
| **5** | Straight lines with gradients $-4$ and $-\frac{1}{4}$ meet at $90°$ | True | False |
|  |  |  |  |
| **6** | The points $(5, -2)$ and $(1, 7) $lie on the line with equation $2x+y=8$ | True | False |
|  |  |  |  |
| **7** | The lines with equations $y=\frac{2}{3}x+4 $ and $y=-\frac{3}{2}x-1$ are perpendicular to each other | True | False |
|  |  |  |  |
| **8** | The lines with equations $y=-3x+1$ and $6x-2y=10$ are parallel to each other. | True | False |
|  |  |  |  |
| **9** | The straight lines with equations $5x+y=15$ and $y=-\frac{1}{5}x+\frac{8}{5}$ are perpendicular to each other | True | False |
|  |  |  |  |
| **10** | The line with equation $5x-4y+3=0$ is parallel to the line with equation $10y-8x=3$ | True | False |
|  |
| **11** | The lines with equations $2x+7y=10$ and $14x=4y+17$ are perpendicular to each other and meet at the point $(1.5, 1)$ | True | False |