## Arcs and sectors

The numbers in the lower grid are 12 of the 13 missing numbers in the upper grid. What is the $13^{\text {th }}$ missing number?

| $\theta$ <br> (in radians) | $r$ <br> $(\mathrm{~cm})$ | Arc Length <br> $(\mathrm{cm})$ | Perimeter of <br> Sector <br> $(\mathrm{cm})$ | Area of Sector <br> $\left(\mathrm{cm}^{2}\right)$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 8 |  | 20.8 |  |
| 10 |  |  |  |  |
| 1.5 |  | 5.5 |  | 13.75 |
|  |  |  |  | 12 |


| 5 | 6 | 14 | 15.5 | 0.4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 19.2 | 24 | 0.6 | 1.1 | 4.8 | 4 |

## Solution

| $\theta$ <br> (in radians $)$ | $r$ <br> $(\mathrm{~cm})$ | Arc Length <br> $(\mathrm{cm})$ | Perimeter of <br> Sector <br> $(\mathrm{cm})$ | Area of Sector <br> $\left(\mathrm{cm}^{2}\right)$ |
| :---: | :---: | :---: | :---: | :---: |
| 0.6 | 8 | 4.8 | 20.8 | 19.2 |
| 0.4 | 10 | 4 | 24 | 20 |
| 1.1 | 5 | 5.5 | 15.5 | 13.75 |
| 1.5 | 4 | 6 | 14 | 12 |

