

臺中市立文華高級中等學校 109 學年度第 1 次教師甄選

數學科專業知能試題解答

|                |  |                          |   |
|----------------|--|--------------------------|---|
| <b>1</b>       | <b>2</b>   | <b>3</b>                 | <b>4</b>  |
| $2\sqrt{11}$   | $18\sqrt{3}$                                       | 11                       | $\frac{1}{3}(x+2)^3 - 2(x+2) + 5$ $= \frac{1}{3}x^3 + 2x^2 + 2x + \frac{11}{3}$ |
| <b>5</b>       | <b>6</b>   | <b>7</b>                 | <b>8</b>  |
| $\frac{25}{3}$ | $\frac{23}{2}$                                     | 2                        | 40  |
| <b>9</b>       | <b>10</b>  | <b>11</b>                | <b>12</b>   |
| $2x^3 - 3x$    | $\frac{\sqrt{6}}{66}$                              | $y^2 = 4x - \frac{9}{4}$ | $k < -3\sqrt{3}$  |
| <b>13</b>      | <b>14</b>  | <b>15</b>                | <b>16</b>   |
| $\frac{3}{17}$ | $\begin{bmatrix} -2^{29} \\ -2^{29} \end{bmatrix}$ | $\pi^2 + 2\pi$           | 441   |