

| 2D Shapes Mark Scheme | | | | | | | | | | | | | | | | |
|-----------------------|---|---|------|---------|----------|---------|---------------|---------|----------|---------|---------|---------|---------|---------|-----------|---|
| 1 | <table border="1"> <thead> <tr> <th>Shape</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>Shape 1</td> <td>Triangle</td> </tr> <tr> <td>Shape 2</td> <td>Parallelogram</td> </tr> <tr> <td>Shape 3</td> <td>Pentagon</td> </tr> <tr> <td>Shape 4</td> <td>Rhombus</td> </tr> <tr> <td>Shape 5</td> <td>Hexagon</td> </tr> <tr> <td>Shape 6</td> <td>Trapezium</td> </tr> </tbody> </table> | Shape | Name | Shape 1 | Triangle | Shape 2 | Parallelogram | Shape 3 | Pentagon | Shape 4 | Rhombus | Shape 5 | Hexagon | Shape 6 | Trapezium | [5] Mark for each correctly paired shape and name |
| | Shape | Name | | | | | | | | | | | | | | |
| | Shape 1 | Triangle | | | | | | | | | | | | | | |
| | Shape 2 | Parallelogram | | | | | | | | | | | | | | |
| | Shape 3 | Pentagon | | | | | | | | | | | | | | |
| | Shape 4 | Rhombus | | | | | | | | | | | | | | |
| | Shape 5 | Hexagon | | | | | | | | | | | | | | |
| Shape 6 | Trapezium | | | | | | | | | | | | | | | |
| 2(a) | 6 sides hexagon | [1] | | | | | | | | | | | | | | |
| 2(b) | 7 sides heptagon | [1] | | | | | | | | | | | | | | |
| 2(c) | 9 sides nonagon | [1] | | | | | | | | | | | | | | |
| 3 | $5 \times 3 = 15 \text{ m}^2$ or $8 \times 3 = 24 \text{ m}^2$ | [1] student must choose all of the first equations or all of the second equations | | | | | | | | | | | | | | |
| | $5 \times 3 = 15 \text{ m}^2$ or $2 \times 3 = 6 \text{ m}^2$ | [1] student must choose all of the first equations or all of the second equations | | | | | | | | | | | | | | |
| | $15 \text{ m}^2 + 15 \text{ m}^2 = 30 \text{ m}^2$ or $24 \text{ m}^2 + 6 \text{ m}^2 = 30 \text{ m}^2$ | [1] student must choose all of the first equations or all of the second equations | | | | | | | | | | | | | | |
| 4 | Identify that the area of a parallelogram is $b \times h$ | [1] Correct formula | | | | | | | | | | | | | | |
| | $22 \times 45 = 990 \text{ cm}^2$ | [1] Working out could be shown here but it is not necessary. | | | | | | | | | | | | | | |
| 5(a) | $\frac{1}{2}(a + b)h$ | [1] Or identifies a correct equation/method for area of a trapezium | | | | | | | | | | | | | | |
| | $\frac{1}{2}(9 + 13) \times 3$ | [1] Correct calculation | | | | | | | | | | | | | | |
| | 33 m^2 | [1] Final answer | | | | | | | | | | | | | | |
| 5(b) | $33 \text{ m}^2 + 33 \text{ m}^2 = 66 \text{ m}^2$ | [1] Sum of cost per warehouse floor | | | | | | | | | | | | | | |
| | $66 \times 25 = \text{£}1650$ | [1] Total cost | | | | | | | | | | | | | | |
| 6(a) | <i>D</i> , this is the only net where a cube with a lid is properly formed | [1] Valid explanation | | | | | | | | | | | | | | |
| 6(b) | A & B have too many faces | [1] Valid explanation | | | | | | | | | | | | | | |
| | C Would have an overlap | [1] Valid explanation | | | | | | | | | | | | | | |
| 7(a) | $P = 2(l + w)$ | [1] Finding the perimeter of the field | | | | | | | | | | | | | | |
| | $P = 2(40 + 100)$ | [1] Correct calculation | | | | | | | | | | | | | | |
| | $P = 280 \text{ m}$ | [1] Total distance of fence required | | | | | | | | | | | | | | |
| 7(b) | 280×5 | [1] Distance multiplied by cost | | | | | | | | | | | | | | |
| | $\text{£}1400$ | [1] Total cost | | | | | | | | | | | | | | |

END