Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period \_\_\_\_\_\_\_\_

For each problem below, graph the two sets of coordinate pairs on the same axes. Connect the points as you go to create polygons. Label each vertex with the letter indicated in the table. Use the grid lines to find the length of each side and label them. Find the scale factor, perimeter and area for each pair of figures. Be sure to count and label carefully.

1.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Figure 1 | | |  | Figure 2 | | | |
| A | (–2, –1) | |  | A | (7, 5) | | |
| B | (–4, –1) | |  | B | (3, 5) | | |
| C | (–4, –5) | |  | C | (3, –3) | | |
| D | (–2, –5) | |  | D | (7, –3) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | |  | | | |
|  | | | | Fig. 1 | | Fig. 2 | |
| Perimeter (units) | | | |  | |  | |
| Area (square units) | | | |  | |  | |

2.

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| Figure 3 | | |  | Figure 4 | | | |
| A | (5, –1) | |  | A | (2, 5) | | |
| B | (5, –4) | |  | B | (3, 5) | | |
| C | (–7, –4) | |  | C | (3, 1) | | |
| D | (–7, –1) | |  | D | (2, 1) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | |  | | | |
|  | | | | Fig. 3 | | Fig. 4 | |
| Perimeter (units) | | | |  | |  | |
| Area (square units) | | | |  | |  | |

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| Figure 7 | | |  | Figure 8 | | | |
| A | (–2, –1) | |  | A | (5, 2) | | |
| B | (–2, 2) | |  | B | (5, 3) | | |
| C | (–8, 2) | |  | C | (3, 3) | | |
| D | (–8, –7) | |  | D | (3, 0) | | |
| E | (1, –7) | |  | E | (6, 0) | | |
| F | (1, –4) | |  | F | (6, 1) | | |
| G | (–5, –4) | |  | G | (4, 1) | | |
| H | (–5, –1) | |  | H | (4, 2) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | |  | | | |
|  | | | | Fig. 7 | | Fig. 8 | |
| Perimeter (units) | | | |  | |  | |
| Area (square units) | | | |  | |  | |

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| Figure 5 | | |  | Figure 6 | | | |
| A | (–6, 4) | |  | A | (4, –1) | | |
| B | (–6, 6) | |  | B | (4, 2) | | |
| C | (–8, 6) | |  | C | (7, 2) | | |
| D | (–8, 0) | |  | D | (7, –7) | | |
| E | (–2, 0) | |  | E | (–2, –7) | | |
| F | (–2, 4) | |  | F | (–2, –1) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | |  | | | |
|  | | | | Fig. 5 | | Fig. 6 | |
| Perimeter (units) | | | |  | |  | |
| Area (square units) | | | |  | |  | |

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4.

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**Answer KEY**Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period \_\_\_\_\_\_\_\_

For each problem below, graph the two sets of coordinate pairs on the same axes. Connect the points as you go to create polygons. Label each vertex with the letter indicated in the table. Use the grid lines to find the length of each side and label them. Find the scale factor, perimeter and area for each pair of figures. Be sure to count and label carefully.

1.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Figure 1 | | |  | Figure 2 | | | |
| A | (–2, –1) | |  | A | (7, 5) | | |
| B | (–4, –1) | |  | B | (3, 5) | | |
| C | (–4, –5) | |  | C | (3, –3) | | |
| D | (–2, –5) | |  | D | (7, –3) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | | **2** | | | |
|  | | | | Fig. 1 | | Fig. 2 | |
| Perimeter (units) | | | | **12** | | **24** | |
| Area (square units) | | | | **8** | | **32** | |

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| Figure 3 | | |  | Figure 4 | | | |
| A | (5, –1) | |  | A | (2, 5) | | |
| B | (5, –4) | |  | B | (3, 5) | | |
| C | (–7, –4) | |  | C | (3, 1) | | |
| D | (–7, –1) | |  | D | (2, 1) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | | **1/3 or 0.33** | | | |
|  | | | | Fig. 3 | | Fig. 4 | |
| Perimeter (units) | | | | **30** | | **10** | |
| Area (square units) | | | | **36** | | **4** | |

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| Figure 5 | | |  | Figure 6 | | | |
| A | (–6, 4) | |  | A | (4, –1) | | |
| B | (–6, 6) | |  | B | (4, 2) | | |
| C | (–8, 6) | |  | C | (7, 2) | | |
| D | (–8, 0) | |  | D | (7, –7) | | |
| E | (–2, 0) | |  | E | (–2, –7) | | |
| F | (–2, 4) | |  | F | (–2, –1) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | | **3/2 or 1.5** | | | |
|  | | | | Fig. 5 | | Fig. 6 | |
| Perimeter (units) | | | | **24** | | **36** | |
| Area (square units) | | | | **28** | | **63** | |

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| Figure 7 | | |  | Figure 8 | | | |
| A | (–2, –1) | |  | A | (5, 2) | | |
| B | (–2, 2) | |  | B | (5, 3) | | |
| C | (–8, 2) | |  | C | (3, 3) | | |
| D | (–8, –7) | |  | D | (3, 0) | | |
| E | (1, –7) | |  | E | (6, 0) | | |
| F | (1, –4) | |  | F | (6, 1) | | |
| G | (–5, –4) | |  | G | (4, 1) | | |
| H | (–5, –1) | |  | H | (4, 2) | | |
|  |  |  |  |  |  | |  |
| Scale factor | | | | **1/3 or 0.33** | | | |
|  | | | | Fig. 7 | | Fig. 8 | |
| Perimeter (units) | | | | **42** | | **14** | |
| Area (square units) | | | | **54** | | **6** | |

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