ML8 Chapter 12 Problems of the Week Answers

BLM 12–4 Chapter 12 Problems of the Week
1. The entire tessellation would cost $13.65. A triangle would cost $0.175, a trapezoid would cost $0.525, and a hexagon would cost $1.05.
2. The letter *H* tessellates. The least number of colours needed is seven.
3. The letter *Z* tessellates. Answers will vary. Example: The letter *Z* is a regular shape, so it will cover the area without leaving gaps or overlapping.
4. Answers will vary and should include points like the following:
• The mathematical skills involved in creating tessellations include transformations, such as translations, reflections, and rotations. You also need to know which shapes will tessellate.
• Having an interest in art may be more important than knowledge of math to do tessellations. Art is about imagination and tessellations are very creative. You use your drawing and colouring abilities to create tessellations.
5. Answers will vary. Example: For an object to tessellate, the interior angles at the vertices need to total exactly 360°.
6. Answers will vary. Look for tessellations that use all of the pattern block pieces, except for the orange square, and that add to no more than $18.75. hexagon = $2.25; trapezoid = $1.125; parallelogram = $0.75