Answers

**Measurement**

**Unit 1 Line Master 9d**

Surface area of a triangular prism = 2 × area of one triangular base + sum of the areas of the 3 rectangular faces

**Prism 1**

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| Area of triangles:  2 × (5 × 4.3) = 21.5  The area of the triangles  is 21.5 cm2. | Area of rectangles:  3(10 × 5) = 3 × 50  = 150  The area of the rectangles  is 150 cm2. |

The surface area of the triangular prism is 21.5 cm2 + 150 cm2, or 171.5 cm2.

**Prism 2**

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| Area of triangles:  2 × (4 × 5.7) = 22.8  The area of the triangles  is 22.8 cm2. | Area of rectangles:  2(6 × 9) + 4 × 9 = 2 × 54 + 36  = 108 + 36  = 144  The area of the rectangles  is 144 cm2. |

The surface area of the triangular prism is 22.8 cm2 + 144 cm2,   
or 166.8 cm2.

**Prism 3**

|  |  |
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| Area of triangles:  2 × (12 × 13.4) = 160.8  The area of the triangles is  160.8 cm2. | Area of rectangles:  12 × 36 + 18 × 36 + 13.4 × 36  = 432 + 648 + 482.4  = 1562.4  The area of the rectangles  is 1562.4 cm2. |

The surface area of the triangular prism is 160.8 cm2 + 1562.4 cm2,

or 1723.2 cm2.