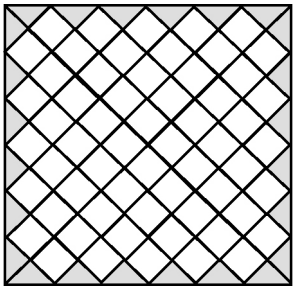
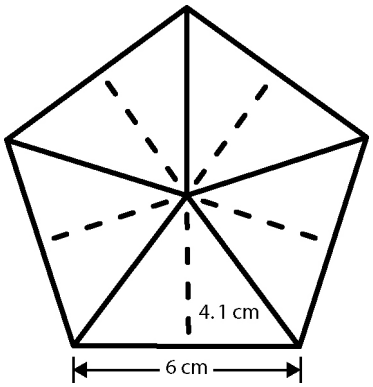
Chapter 3 Gifted and Enrichment Answers

1. There will be 60 four-sided playing spaces on the board.

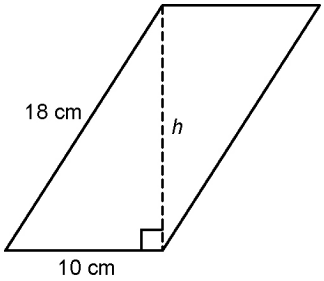


2.



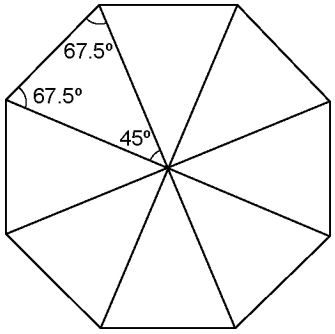
Area of one right triangle:
$A = b \times h \div 2$
$A = 3 \times 4.1 \div 2$
$A = 6.15$
Area of ten right triangles:
$6.15 \times 10 = 61.5$
The area of the five-sided figure is 61.5 cm^2.

3.



$h^2 + 10^2 = 18^2$
$h^2 + 100 = 324$
$h^2 = 224$
$h \approx 14.97$
Area of one triangle:
$A = b \times h \div 2$
$A = 10 \times 14.97 \div 2$
$A = 74.85$
Area of two triangles: $74.85 \times 2 = 149.7$
The area of the parallelogram is approximately 149.7 cm^2.

4.



The interior angles of each triangle are 45° at the centre of the figure and 67.5° at each of the base angles.