Answers

1. k=62

2. 416723

3. D

4. D3

5. 2pm

6. Part 1 = 19/59, part 2 = 800/3422

7. 617

8. $8x^2(\pi - 2)$

9. Put 1 weight from stack 1, 2 weights from stack 2 and so on, onto the weighing scale. You know how much this should weigh. The number of kilograms heavier than expected that the scale shows corresponds to the stack – e.g if the scale is 4kg heavier than you expect, stack 4 is faulty.