STOP AT 4
Answer Guide A

This Investigation Guide generalises the procedure by changing the values of some of the previous constraints. The intention is that students will apply and extend what they learn from the card and become more confident with generalising about this task..

Using the notation in the Task Cameo, these equations give the size of the remainder pile.

1. $20 - [3 \times 6 - (a + b + c)]$ cards in the remainder pile; this is:
   $2 + a + b + c$.

2. $24 - [3 \times 7 - (a + b + c)]$ cards in the remainder pile; this is:
   $3 + a + b + c$.

3. $40 - [3 \times 11 - (a + b + c)]$ cards in the remainder pile; this is:
   $7 + a + b + c$.

4. $52 - [3 \times 14 - (a + b + c)]$ cards in the remainder pile; this is:
   $13 + a + b + c$.

5. See all of the above.

6. 20 cards
   There are $20 - [4 \times 6 - (a + b + c)]$ cards in the remainder pile; this is $a + b + c - 4$.
   24 cards
   There are $24 - [4 \times 7 - (a + b + c)]$ cards in the remainder pile; this is $a + b + c - 4$.
   40 cards
   There are $40 - [4 \times 11 - (a + b + c)]$ cards in the remainder pile; this is $a + b + c - 4$.
   52 cards
   There are $52 - [3 \times 14 - (a + b + c)]$ cards in the remainder pile; this is $a + b + c - 4$.

   Clearly, for any size pack, with four piles you subtract 4.