

5. Stars.

$$\begin{array}{r}
 19 \\
 38 \\
 57 \\
 76 \\
 95 \\
 \hline
 031 \\
 19 \overline{)589} \\
 \underline{-57} \downarrow \\
 019
 \end{array}$$

114 He can make
 133 31 flags with
 152 enough stars
 171 on each.
 190

Hearts.

$$\begin{array}{r}
 31 \\
 62 \\
 93 \\
 124 \\
 155 \\
 \hline
 029 \\
 31 \overline{)899} \\
 \underline{-62} \downarrow \\
 279
 \end{array}$$

186 He can make 29
 217 flags with enough
 248 hearts on each.
 279
 310

Amir needs hearts and stars on each flag, so can complete 29 flags in total.

$$\begin{array}{r}
 6. a) \quad 168 \\
 \times \quad 5 \\
 \hline
 840 \\
 \hline
 34
 \end{array}$$

$$\begin{array}{r}
 024 \\
 35 \overline{)840} \\
 \underline{-70} \\
 140
 \end{array}$$

$$\begin{array}{r}
 35 \\
 70 \\
 105 \\
 140 \\
 175 \\
 210 \\
 245 \\
 280 \\
 315 \\
 350
 \end{array}$$

$$\text{So } \underbrace{168 \times 5}_{840} = \underbrace{24 \times 35}_{840}$$

b) Or another method:

$$\text{I know } 35 = 7 \times 5.$$

$$\text{So I can do } \begin{array}{r} 024 \\ 7 \overline{)168} \end{array}$$

I know there are 24 sevens in 168.

So the missing number is 24.

$$7. a) \quad \begin{array}{r} 021 \\ 41 \overline{)861} \\ \underline{-82} \downarrow \\ 041 \end{array}$$

$$b) \quad \begin{array}{r} 023 \\ 41 \overline{)943} \\ \underline{-82} \\ 123 \end{array}$$

