

$$1. \quad (a) \quad (21-11)+(23-13)+(25-15)+(27-17)+(29-19) = 10+10+10+10+10 = 50$$

$$(b) \quad (120-20)+(670-170)+(930-30)+(260-60) = 100+500+900+200 = 1700$$

$$2. \quad (a) \quad 79 - (54 + (28 - 13)) = 79 - (54 + 28 - 13) = 79 - 54 - 28 + 13$$

$$(b) \quad 79 + (54 - (28 + 13)) = 79 + (54 - 28 - 13) = 79 + 54 - 28 - 13$$

$$(c) \quad 79 - (54 - (28 - 13)) = 79 - (54 - 28 + 13) = 79 - 54 + 28 - 13$$

$$(d) \quad 79 - (54 + (28 - (13 + 9))) = 79 - (54 + (28 - 13 - 9))$$

$$= 79 - (54 + 28 - 13 - 9)$$

$$= 79 - 54 - 28 + 13 + 9$$

$$3. \quad (a) \quad \begin{array}{r} 24973 \\ + 76364 \\ \hline 101337 \end{array}$$

$$(b) \quad \begin{array}{r} 403567 \\ + 183518 \\ \hline 587085 \end{array}$$

$$(c) \quad \begin{array}{r} 2109 \\ + 7782 \\ + 4311 \\ \hline 14202 \end{array}$$

$$4. \quad (a) \quad \begin{array}{r} 8208 \\ - 3754 \\ \hline 4454 \end{array}$$

$$(b) \quad \begin{array}{r} 324229 \\ - 76512 \\ \hline 247717 \end{array}$$

$$(c) \quad \begin{array}{r} 56981 \\ - 17158 \\ - 26433 \\ \hline 13390 \end{array}$$

$$5. \quad (a) \quad \begin{array}{r} 4021_5 \\ + 3142_5 \\ \hline 12213_5 \end{array}$$

$$(b) \quad \begin{array}{r} 111011_2 \\ + 110101_2 \\ \hline 1110000_2 \end{array}$$

$$(c) \quad \begin{array}{r} 5763_8 \\ + 2014_8 \\ \hline 7777_8 \end{array}$$

$$(d) \quad \begin{array}{r} 10011011_2 \\ + 11010101_2 \\ \hline 101110000_2 \end{array}$$

$$\begin{array}{r} 6. \quad (a) \quad 3232_4 \\ - \quad 1031_4 \\ \hline 2201_4 \end{array}$$

$$\begin{array}{r} (b) \quad 1110101_2 \\ - \quad 100111_2 \\ \hline 1001110_2 \end{array}$$

$$\begin{array}{r} (c) \quad 2222_3 \\ - \quad 1212_3 \\ \hline 1010_3 \end{array}$$

$$\begin{array}{r} (d) \quad 1110001_2 \\ - \quad 1001011_2 \\ \hline 100110_2 \end{array}$$