

$$\begin{aligned}
 \text{8a. } f(x, y, z) &= \bar{x}(xy + \bar{z}) + \bar{y}(y + \bar{z}) + xz \\
 &= \bar{x}xy + \bar{x}\bar{z} + \bar{y}y + \bar{y}\bar{z} + xz \\
 &= 0 + \bar{x}\bar{z} + 0 + \bar{y}\bar{z} + xz \\
 &= \bar{x}\bar{z} + \bar{y}\bar{z} + xz
 \end{aligned}$$

$$\begin{aligned}
 \text{b. } f(x, y, z) &= \bar{x}(xy + \bar{z}) + \bar{y}(y + \bar{z}) + xz \\
 &= \cancel{\bar{x}xy} + \cancel{\bar{x}\bar{z}} + \bar{y}y + \bar{y}\bar{z} + xz
 \end{aligned}$$

	$xy$							
	0	0	0	1	1	0	1	1
0	1	1	0	1	1	1	1	1
1	0	0	1	1	1	1	1	1

$$= (\bar{z} + x)(z + \bar{x} + \bar{y})$$