

1. 16**2.** 7**3.** does not exist

4. $\begin{bmatrix} 3 & -2 \\ -7 & 5 \end{bmatrix}$

5. The student did not subtract correctly.

$$\begin{aligned} \det \begin{bmatrix} 2 & 5 \\ -3 & 1 \end{bmatrix} &= (2)(1) - (-3)(5) \\ &= 2 - (-15) \\ &= 2 + 15 = 17 \end{aligned}$$

7. yes**8.** yes**9.** yes**10.** yes**11.** no**12.** -21**13.** 0**14.** -0.75**15.** $-\frac{11}{40}$ **16.** -17**17.** 11**18.** -3**19.** -6**29.** yes; $\begin{bmatrix} -1 & 3 \\ 1 & -2 \end{bmatrix}$ **30.** yes; $\begin{bmatrix} 2 & -1.5 \\ -1 & 1 \end{bmatrix}$ **31.** yes; $\begin{bmatrix} 0 & \frac{1}{2} \\ \frac{1}{3} & -\frac{1}{6} \end{bmatrix}$ **32.** no**33.** yes; $\begin{bmatrix} -\frac{1}{8} & -\frac{1}{2} \\ \frac{3}{16} & \frac{1}{4} \end{bmatrix}$ **35.** yes; $\begin{bmatrix} 0 & \frac{1}{3} \\ -\frac{1}{2} & \frac{1}{6} \end{bmatrix}$