

4.1 Handout Additional Exercises

1. One of the following equations is an identity and the other is a conditional equation. Identify each and explain the difference between the two.

(1) $3(2x - 3) = 3(3 - 2x)$

(2) $3(2x - 3) = 6x - 9$

2. One of the following equations is an identity and the other is a conditional equation. Identify each and explain the difference between the two.

(1) $\sin x + \cos x = 1$

(2) $\sin^2 x = 1 - \cos^2 x$

3. Is the equation an identity? Explain. $(x + 3)^2 = x^2 + 9$