Lesson 31: System of Equations Leading to Pythagorean Triples

Exit Ticket

Use a calculator to complete problems 1–3.

Is 7, 20, 21 a Pythagorean triple? Is $1, \frac{15}{8}, \frac{17}{8}$ a Pythagorean triple? Explain.

Identify two Pythagorean triples using the known triple $9, 40, 41$.

Use the system $\begin{cases} x + y = \dfrac{t}{s} \\ x - y = \dfrac{s}{t} \end{cases}$ to find Pythagorean triples for the given values of $s = 2$ and $t = 3$. Recall that the solution, in the form of $\left(\frac{c}{b}, \frac{a}{b}\right)$, is the triple, a, b, c. Verify your results.