


7.5 Substitution into Algebraic Expressions (One Positive Value)

The Whirlpool from Which no Waka Returns

Many *waka*¹ left Hawaiki to settle in the land that Kupe had discovered. They each faced incredibly challenging journeys and not everyone was fortunate enough to survive. Many of the *waka* were lost when drawn into “The whirlpool from which no *waka* returns”.

To discover the name of this traditional Māori whirlpool, substitute the given values into the algebraic expressions and evaluate. The letter beside each question and its answer will give the puzzle code.

¹Waka (canoe);

When $x = 2$, then $x + 7 =$ <i>A</i>	When $x = 8$, then $\frac{48}{x} =$ <i>E</i>	When $x = 2$, then $4 - 5x =$ <i>H</i>
When $x = 16$, then $\frac{x}{2} =$ <i>F</i>	When $y = 2$, then $2(y + 5) =$ <i>O</i>	When $x = 5$, then $4x =$ <i>A</i>
When $y = 4$, then $3(2y + 1) =$ <i>R</i>	When $x = 0$, then $2x + 4 =$ <i>A</i>	When $x = 9$, then $\frac{4x}{3} =$ <i>O</i>
When $t = 1$, then $7(5 - t) =$ <i>T</i>	When $y = 10$, then $5(y - 1) =$ <i>P</i>	When $t = 7$, then $\frac{3t}{7} =$ <i>T</i>
When $x = 6$, then $5x - 7 =$ <i>A</i>	When $a = 13$, then $\frac{a+7}{4} =$ <i>T</i>	When $y = 7$, then $-2(y + 3) =$ <i>R</i>
When $x = 4$, then $\frac{12-x}{8} =$ <i>T</i>	When $x = 7$, then $\frac{4(x+3)}{x-3} =$ <i>H</i>	

3	-6	6	7	1	10	-20	14	23	28	7	12	8	7	1	6	7	45	9	27	4	5	20