TT8 Possible Solutions

TT 8.a. *Foundations and Pre-calculus Mathematics 10* (Pearson), question 13 on page 167

13. a) The solution should be as follows.

$$(r - 13)(r + 4) = r(r + 4) - 13(r + 4)$$
$$= r^2 + 4r - 13r - 52$$
$$= r^2 - 9r - 52$$

The second line should have a –52 and the third line should have a –9*r* and –52.

b) The solution should be as follows.

$$(s - 15)(s - 5) = s(s - 5) - 15(s - 5)$$
$$= s^2 - 5s - 15s + 75$$
$$= s^2 - 20s + 75$$

The first line should have $s(s - 5) - 15(s - 5)$ and then the second and third lines can be corrected to look like above.

TT 8. b. *Foundations and Pre-calculus Mathematics 10* (Pearson), questions 11 and 14 on page 186

11. The solution should be as follows.

$$(2r - 3s)(r - 5s + 6) = 2r(r - 5s + 6) - 3s(r - 5s + 6)$$
$$= 2r^2 - 10rs + 12r - 3rs + 15s^2 - 18s$$
$$= 2r^2 + 15s^2 - 13rs + 12r - 18s$$

14. One way to discover the errors is to create a table to evaluate each product after the distributive property is applied.

	$3g^2$	$4g$	-2
$-g^2$	$-3g^4$	$-4g^3$	$2g^2$
$-g$	$-3g^3$	$-4g^2$	$2g$
	$12g^2$	$16g$	-8

The highlighted cells indicate discrepancies between the original solution and the correct solution.

The final solution is $-3g^4 - 7g^3 + 10g^2 + 18g - 8$.