

TT 6. Possible Solutions

a. *Foundations and Pre-calculus Mathematics 10* (Pearson), question 12 on page 155

12. a) i) Error: $-3m \div 3m \neq 0$
Correction: $3m^2 + 9m^3 - 3m = 3m(m + 3m^2 - 1)$
- ii) Error: After dividing by -4 , the trinomial remaining should be $(4 - 2n + n^3)$

Correction: $-16 + 8n - 4n^3 = -4(4 - 2n + n^3)$

b) The student should have multiplied the factors that he or she obtained to see if the product is equal to the original polynomial.

TT 6.b. *Foundations and Pre-calculus Mathematics 10* (Pearson), question 14 on page 199

14. a) Error: The greatest common factor was not taken out.

Correction:

$$15p^2q = 3 \times 5 \times p \times p \times q$$

$$25pq^2 = 5 \times 5 \times p \times q \times q$$

$$35q^3 = 5 \times 7 \times q \times q \times q$$

$$\text{GCF} = 5 \times q = 5q$$

$$15p^2q + 25pq^2 - 35q^3 = 5q(3p^2 + 5pq - 7p^2)$$

b) Error: The first term was divided by $+3$ instead of -3 , and the other two terms were not divided by the GCF.

$$\text{Correction: } -12mn + 15m^2 + 18n^2 = -3(4mn - 5m^2 - 6n^2)$$