Answer on Question #60331 – Math – Algebra

Question

1. Expand the brackets in the following expressions.

(11x − 4) (6x + 12)

(5a − 8b)^2

2. Factorise the following expressions.

x^2 + 21x − 72

64m^2 − 169n^2

Solution

1.

(11 x - 4)(6 x + 12) =11 x ·6 x +11 x ·12 – 4·6 x – 4·12= 66x^2+132 x – 24 x – 48=66x^2+ 108x – 48;

$(5a - 8b)^2 = (5a)^2 - 2 \cdot (5a) \cdot (8b) + (8b)^2 =$ 25a^2 - 80ab + 64b^2.

2.

x^2+ 21 x – 72 =$x^2 + 24x - 3x - 72 = (x^2 + 24x) - (3x + 72) = x(x + 24) - 3(x + 24) =$

=(x + 24)(x −3);

64$m^2 - 169n^2$ =$(8m)^2 - (13n)^2 =$ (8m −13n)(8m + 13n).

Answer:

1. 66x^2+ 108x – 48; 25a^2 − 80ab + 64b^2.
2. (x + 24)(x −3); (8m − 13n)(8m + 13n).