

Q3 Exam 3 Practice

Perform the indicated polynomial operation.

1) $(4x^4 + 6) + (8 - 5x^4)$

2) $(1 - 6x^4) - (4 + 5x^4)$

3) $(4p + 5)(8p - 3)$

4) $(7x + 2)(6x + 1)$

Factor each completely - use factoring by grouping, rearrange if needed.

5) $2n^3 - 2n^2 - 3n + 3$

Factor each quadratic completely, look for a GCF, use the magic number method for trinomials.

6) $v^2 - 8v$

7) $x^2 - 5x$

8) $7b^2 - 2b$

Factor each special pattern completely, these should be "mental math".

9) $9n^2 - 24n + 16$

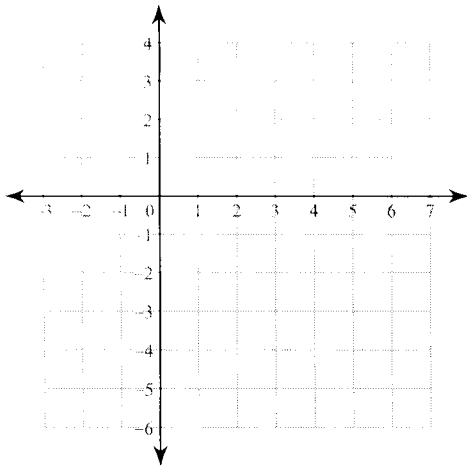
10) $4b^2 + 4b + 1$

11) $v^2 - 4$

12) $x^2 + 4x + 4$

Sketch the graph of each function.

13) $y = -2x^2 - 4x + 1$



Solve each equation with the quadratic formula.

14) $12a^2 - 11a = 11$

Simplify.

15) $\frac{4}{5 - \sqrt{2}}$

Answers to Q3 Exam 3 Practice

1) $-x^4 + 14$

2) $-11x^4 - 3$

3) $32p^2 + 28p - 15$

4) $42x^2 + 19x + 2$

5) $(2n^2 - 3)(n - 1)$

6) $v(v - 8)$

7) $x(x - 5)$

8) $b(7b - 2)$

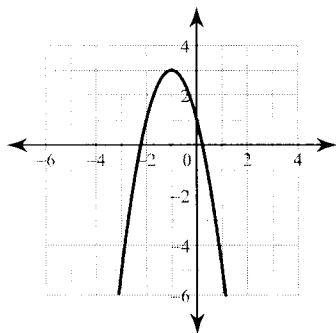
9) $(3n - 4)^2$

10) $(2b + 1)^2$

11) $(v + 2)(v - 2)$

12) $(x + 2)^2$

13)



14) $\left\{ \frac{11 + \sqrt{649}}{24}, \frac{11 - \sqrt{649}}{24} \right\}$

15) $\frac{20 + 4\sqrt{2}}{23}$