

ALGEBRA II REVIEW PROBLEMS

(Secs 6-7 and 6-8)

Solve the following:

1. A committee has 7 members. One member is to be selected as chairperson and another member is to be selected as secretary. In how many ways can these selections be made?
2. A student has 4 pencils, 3 ball point pens and 1 felt-tip pen in a cup. In how many different ways can 2 of the 8 be selected?

Do the following:

3. Expand $(2x + 5y)^4$
4. Find the third term of $(x - 3y)^6$

Mixed Review:

5. Solve $|2x + 6| \leq 4$
6. Write the equation of a line passing through $(3, -4)$ and $(-2, 6)$
7. Solve the following system:
$$\begin{cases} 8x + 3y = 5 \\ 6x - 2y = -9 \end{cases}$$
8. Factor $6x^2 + 13x + 6$

ANSWERS

1. 42
2. 28
3. $16x^4 + 160x^3y + 600x^2y^2 + 1000xy^3 + 625y^4$
4. $135x^4y^2$
5. $-5 \leq x \leq -1$
6. Any of the following:
 $y + 4 = -2(x - 3)$
 $y + 6 = -2(x + 2)$
 $y = -2x - 10$
 $2x + y = -10$
7. $(-\frac{1}{2}, 3)$
8. $(2x + 3)(3x + 2)$