

ALGEBRA II REVIEW PROBLEMS

(6-7 thru 7-3)

1. Solve the following:

- a. How many different orders can you choose to read six of nine books on a summer reading list?
- b. How many ways are there to choose five shirts out of seven to take to camp?

2. Do the following:

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

3. Simplify the following:

a. $\sqrt[4]{x^{18}y^8}$

b. $(\sqrt{3})(\sqrt{18})$

c. $\frac{\sqrt[3]{640w^3z^8}}{\sqrt[3]{5wz^4}}$

d. $\frac{\sqrt[3]{5}}{\sqrt[3]{6}}$

e. $\frac{2}{2\sqrt{2} - 3}$

f. $8\sqrt{45} - 3\sqrt{80}$

ANSWERS

1a) 60, 480

1b) 21

2a) $16x^4 + 160x^3y + 600x^2y^2 + 1000xy^3 + 625y^4$

2b) $135x^4y^2$

3a) $x^4y^2\sqrt{x}$

3b) $3\sqrt{6}$

3c) $4z\sqrt[3]{2w^2z}$

3d) $\frac{\sqrt[3]{180}}{6}$

3e) $-4\sqrt{2} - 6$

3f) $12\sqrt{5}$