For #1–4, tell how many terms there will be and expand.

1. $(A + 7)^6$

2. $(X - 2)^5$

3. $(3X + 1)^4$

4. $(R - 1/2)^6$

5. What is the fourth term of $(A + 2B)^5$?

6. What is the third term of $(X + 2)^6$?

7. What is the fifth term of $(2X - 2)^7$?

8. What is the second term of $(X - 1/3)^4$?

9. What is the fourth term of $(X + Y)^6$?

10. What is the sixth term of $(P - Q)^8$?

Answer the questions.

1. How many terms are in $(X - 4)^5$?

2. Expand $(X - 4)^5$.

3. How many terms are in $(X + 2)^4$?

4. Expand $(X + 2)^4$.

5. What is the fourth term of $(2X + 3)^5$?

6. What is the second term of $(2X + 3)^5$?

7. What is the first term of $(2X + 1)^4$?

8. What is the third term of $(2X + 1)^4$?

9. Expand $(X + A)^2$.

10. Find the binomial root of the trinomial $36X^2 - 6X + 1/4$.

11. Expand $(X + 4/5)^3$.

12. Expand $(3X + 1)^3$.

Simplify so that there are no imaginary numbers or radicals in the denominator.

13. $\dfrac{\sqrt{8}}{5\sqrt{7} - 4}$

14. $\dfrac{-3i}{2 - 11i}$

Simplify, and combine like terms when possible.

15. $(-5i)(6) =$

16. $\left(5\sqrt{-8}\right)\left(-7\sqrt{-2}\right) =$

17. $\sqrt{\dfrac{1}{10}} + 3\sqrt{90}$

18. $\left(\sqrt{81}\right)^{3/2}$

19. $\dfrac{X^2 + 5X + 6}{X^2 - 16} \div \dfrac{X^2 + 6X + 9}{X^2 + 6X + 8}$

20. $\dfrac{12X^3X^2X^{-1}Y^{-2}}{Y^{-7}} + \dfrac{10X^2}{X^{-2}Y^5} + \dfrac{8XXYX^2}{Y^{-2}X^0Y^{-2}}$