6. C : $7^{-5} \div 7^{3} = 7^{-5-3} = 7^{-8}$

7. E : $X^{8} \div X^{2} = X^{8-2} = X^{6}$

8. A : $X^{-2}X^{-3} = X^{-2+(-3)} = X^{-5} = \frac{1}{X^{5}}$

9. B : $X^{0} = 1$; Any number raised to the 0 power equals 1.

10. E : $X^{-2}Y^{6}X^{-3}Y = X^{-2+(-3)}Y^{6+1} = X^{-5}Y^{7}$

11. B : $A^{-1}A^{-8}B^{7}B^{2} = A^{-1+(-8)}B^{7+2} = A^{-9}B^{9}$

12. E : $\frac{B^{4}B^{2}}{B^{-3}} = B^{4}B^{2}B^{3} = B^{4+2+3} = B^{9}$

13. A : $\frac{P^{3}N^{-2}}{N^{2}P^{4}} = P^{3}N^{-2}N^{-2}P^{-4} = P^{3+(-4)}N^{-2+(-2)} = P^{-1}N^{-4}$

14. D : $\left(9^{2}\right)^{5} = 9^{2 \cdot 5} = 9^{10}$

15. C : $\left(X^{A}\right)^{B} = X^{AB}$

Test 20

1. A : equation is a specific kind of polynomial called a trinomial

2. D :
$$\begin{array}{r} X^{2}+3X+2 \\ +\ X^{2}+4X+5 \\ \hline 2X^{2}+7X+7 \end{array}$$

3. A :
$$\begin{array}{r} X^{2}+X+10 \\ +\ X^{2}-2X+4 \\ \hline 2X^{2}-X+14 \end{array}$$

4. E :
$$\begin{array}{r} X^{2}+8X+6 \\ +\ X^{2}-3X-1 \\ \hline 2X^{2}+5X+5 \end{array}$$

5. E :
$$\begin{array}{r} X^{2}-5X-2 \\ +\ X^{2}-4X-3 \\ \hline 2X^{2}-9X-5 \end{array}$$

6. C :
$$\begin{array}{r} 2X+3 \\ +\ 4X-5 \\ \hline 6X-2 \end{array}$$

7. B :
$$\begin{array}{r} 2X^{2}-9X+5 \\ +\ X^{2}+4X-1 \\ \hline 3X^{2}-5X+4 \end{array}$$

8. C :
$$\begin{array}{r} 4X+3 \\ \times\ X+1 \\ \hline 4X+3 \\ 4X^{2}+3X \\ \hline 4X^{2}+7X+3 \end{array}$$

9. B :
$$\begin{array}{r} X+3 \\ \times\ X+2 \\ \hline 2X+6 \\ X^{2}+3X \\ \hline X^{2}+5X+6 \end{array}$$

10. A :
$$\begin{array}{r} X+4 \\ \times\ X-2 \\ \hline -2X-8 \\ X^{2}+4X \\ \hline X^{2}+2X-8 \end{array}$$

11. C :
$$\begin{array}{r} X+1 \\ \times\ X+5 \\ \hline 5X+5 \\ X^{2}+X \\ \hline X^{2}+6X+5 \end{array}$$

12. D :
$$\begin{array}{r} X-3 \\ \times\ X-6 \\ \hline -6X+18 \\ X^{2}-3X \\ \hline X^{2}-9X+18 \end{array}$$

13. B : Multiplying the two first terms: $7X \cdot X = 7X^{2}$

14. B : Multiplying the two first terms: $2X \cdot X = 2X^{2}$

15. B : trinomial

Test 21

1. E :
$$\begin{array}{r} X+A \\ \times\ X+B \\ \hline BX+AB \\ X^{2}+AX \\ \hline X^{2}+(A+B)X+AB \end{array}$$

2. B : $(A+B)X$

3. B : $(X+1)(X+2)$

4. E : $(X+3)(X+5)$

5. B : $(X+6)(X+6)$

6. B : $(X+2)(X+10)$

7. C : $(X+3)(X+8)$