5.2 Pascal’s Triangle

In-Class Example: Use Pascal’s Triangle from the notes to expand $(2y - 4)^5$

1. Complete the missing values and bottom row of Pascal’s Triangle.

```
   1
   1  1
   1  2  ___
   1  ___  3  1
   1  ___  6  4  1
   1  5  10  10  5  1

   ___  ___  ___  ___  ___  ___
```

In Exercises 2-7, use Pascal’s Triangle to expand $(a + b)^n$.

2. $(x + 1)^3$

3. $(y - 2)^4$

4. $(2x + 3)^5$

5. $(3y - 1)^6$
6. $(5x + 0)^4$  
7. $(4y + 1)^5$

8. $(4n - 3)^6$  
9. $(2x + 4)^3$

10. $(y - 8)^4$  
11. $(n + 2)^6$