

- ❖ Show all work
- ❖ No notes, books, or calculators allowed.

1. (3 points) Simplify the expression

$$-2 - (5 - 17) + (-6)$$

$$\begin{aligned} &= -2 - (-12) + (-6) \\ &= -2 + 12 - 6 \\ &= \boxed{4} \end{aligned}$$

2. (3 points) Evaluate the expression given $x = -1$ and $y = 3$

$$\frac{5x+7y}{3(x+y)}$$

$$\begin{aligned} &= \frac{5(-1) + 7(3)}{3(-1 + 3)} \\ &= \frac{-5 + 21}{3(2)} = \frac{16}{6} = \boxed{\frac{8}{3}} \end{aligned}$$

3. (2 points) Add and write in lowest terms

$$\frac{5}{8} + \frac{11}{12}$$

$$LCD = 24$$

$$\begin{aligned} &= \frac{5}{8} \cdot \frac{3}{3} + \frac{11}{12} \cdot \frac{2}{2} \\ &= \frac{15}{24} + \frac{22}{24} \\ &= \boxed{\frac{37}{24}} \end{aligned}$$

4. (2 points) Simplify the expression

$$7[3 + 6(3^2)]$$

$$\begin{aligned} &= 7[3 + 6(9)] \\ &= 7[3 + 54] \\ &= 7[57] \\ &= \boxed{399} \end{aligned}$$