

simplify.

$$\begin{aligned} 1.) & ((72 \div 8)^2 - 6) + 8 \\ & = (9^2 - 6) + 8 \\ & = (81 - 6) + 8 \\ & = 75 + 8 \\ & = \boxed{83} \end{aligned}$$

$$\begin{aligned} 3.) & (81 \div (9 \cdot 3)) + 6 \cdot 2^2 \\ & = (81 \div 27) + 6 \cdot 2^2 \\ & = 3 + 6 \cdot 2^2 \\ & = 3 + 6 \cdot 4 \\ & = 3 + 24 \\ & = \boxed{27} \end{aligned}$$

$$\begin{aligned} 5.) & \frac{4}{9} + \frac{8}{9} + (8 \cdot 3) \\ & = \frac{4}{9} + \frac{8}{9} + 24 \\ & = \frac{4}{9} + \frac{8}{9} + \frac{216}{9} \\ & = \frac{228}{9} \\ & = \boxed{\frac{76}{3}} \end{aligned}$$

$$\begin{aligned} 7.) & 3^2 - \left(\frac{56}{9+5}\right) + 8 - 3 \\ & = 3^2 - \left(\frac{56}{14}\right) + 8 - 3 \\ & = 3^2 - 4 + 8 - 3 \\ & = 9 - 4 + 8 - 3 \\ & = \boxed{10} \end{aligned}$$

$$\begin{aligned} 9.) & (4 + 6)^2 + ((8 - 5) + 6) \\ & = 10^2 + (3 + 6) \\ & = 10^2 + 9 \\ & = 100 + 9 \\ & = \boxed{109} \end{aligned}$$

$$\begin{aligned} 2.) & ((12 + 4 + 3)^2) - 7 \cdot 5 \\ & = 19^2 - 7 \cdot 5 \\ & = 361 - 7 \cdot 5 \\ & = 361 - 35 \\ & = \boxed{326} \end{aligned}$$

$$\begin{aligned} 4.) & (6 - (9 - 8)) + 5^2 - 2(4) \\ & = (6 - 1) + 5^2 - 2(4) \\ & = 5 + 5^2 - 2(4) \\ & = 5 + 25 - 2(4) \\ & = 5 + 25 - 8 \\ & = \boxed{22} \end{aligned}$$

$$\begin{aligned} 6.) & 9 \div \frac{2}{3} - (11 - 5) \\ & = 9 \div \frac{2}{3} - 6 \\ & = 9 \cdot \frac{3}{2} - 6 \\ & = \frac{27}{2} - 6 \\ & = \frac{27}{2} - \frac{12}{2} = \boxed{\frac{15}{2}} \end{aligned}$$

$$\begin{aligned} 8.) & 3^3 + ((4(2) - 6) \cdot 8) \\ & = 3^3 + ((8 - 6) \cdot 8) \\ & = 3^3 + (2 \cdot 8) \\ & = 3^3 + 16 \\ & = 27 + 16 \\ & = \boxed{43} \end{aligned}$$

$$\begin{aligned} 10.) & \frac{42}{6} - 3 + (6 + 5)^2 \\ & = \frac{42}{6} - 3 + 11^2 \\ & = \frac{42}{6} - 3 + 121 \\ & = 7 - 3 + 121 \\ & = \boxed{125} \end{aligned}$$

$$11.) (72 \div 8 - \frac{7}{2}) + \frac{1}{3} \div \frac{1}{6} - 7$$

$$= (9 - \frac{7}{2}) + \frac{1}{3} \div \frac{1}{6} - 7$$

$$= (\frac{18}{2} - \frac{7}{2}) + \frac{1}{3} \div \frac{1}{6} - 7$$

$$= \frac{11}{2} + \frac{1}{3} \div \frac{1}{6} - 7$$

$$= \frac{11}{2} + \frac{1}{3} \cdot 6 - 7$$

$$= \frac{11}{2} + 2 - 7$$

$$= \frac{11}{2} + \frac{4}{2} - \frac{14}{2} = \boxed{\frac{1}{2}}$$

$$13.) 6 \div (\frac{1}{8} + \frac{5}{8}) + 49 \div 7$$

$$= 6 \div (\frac{6}{8}) + 49 \div 7$$

$$= 6 \cdot \frac{8}{6} + 49 \div 7$$

$$= 8 + 49 \div 7$$

$$= 8 + 7$$

$$= \boxed{15}$$

$$12.) 2(\frac{6}{7}) - (3 \div \frac{5}{2})$$

$$= 2(\frac{6}{7}) - (3 \cdot \frac{2}{5})$$

$$= \frac{12}{7} - \frac{6}{5}$$

$$= \frac{60}{35} - \frac{42}{35}$$

$$= \boxed{\frac{18}{35}}$$

$$14.) (9 - 2) \div \frac{1}{5} - 4(8)$$

$$= 7 \div \frac{1}{5} - 4(8)$$

$$= 7 \cdot 5 - 4(8)$$

$$= 35 - 32$$

$$= \boxed{3}$$

Evaluate each using the values given.

$$15.) n - |m^2| - m; \text{ for } m = 2 \text{ and } n = 7$$

$$= 7 - |2^2| - 2$$

$$= 7 - 4 - 2$$

$$= \boxed{1}$$

$$16.) y + x + |-6y|; \text{ for } x = 3 \text{ and } y = 9$$

$$= 9 + 3 + |-6(9)|$$

$$= 9 + 3 + |-54|$$

$$= 9 + 3 + 54$$

$$= \boxed{66}$$

$$17.) \frac{|-5+z|}{4} + y; \text{ use } y = -9 \text{ and } z = -3$$

$$= \frac{|-5+(-3)|}{4} + (-9)$$

$$= \frac{|-8|}{4} + (-9)$$

$$= \frac{8}{4} + (-9)$$

$$= 2 + (-9)$$

$$= \boxed{-7}$$

$$18.) jh + j|h|; \text{ use } h = 6 \text{ and } j = -5$$

$$= (-5)(6) + (-5)|6|$$

$$= -30 + (-5)(6)$$

$$= -30 - 30$$

$$= \boxed{-60}$$