Algebra 1
Name_____

HW 10.1

Date_____ Algebra_____

Simplify each expression.

1) $\dfrac{m^2 - 6m + 5}{m - 5}$

2) $\dfrac{n + 9}{n^2 + 8n - 9}$

3) $\dfrac{15x + 15}{6}$

4) $\dfrac{r^2 + 7r - 8}{r + 8}$

5) $\dfrac{m^2 - 36}{3m^2 + 18m}$

6) $\dfrac{n^2 + 13n + 36}{n^2 - 81}$

7) $\dfrac{40p + 56}{24p - 40}$

8) $\dfrac{2r + 14}{r^2 + r - 42}$

9) $\dfrac{x^2 - 4x - 5}{3x^3 - 12x^2 - 15x}$

10) $\dfrac{12v^2 + 4v - 16}{12v + 16}$

11) $\dfrac{2b^2 - 4b + 2}{6b^3 + 2b^2 - 8b}$

12) $\dfrac{4n^4 - 24n^3 + 20n^2}{4n^3 - 24n^2 + 20n}$

State the excluded values for each.

13) $\dfrac{x^2 + 2x - 63}{x^2 - 4x - 21}$

14) $\dfrac{x^2 + 2x - 24}{3x + 18}$

15) $\dfrac{18x + 6}{42x + 36}$

16) $\dfrac{63k^2 - 54k}{3k^4}$

17) $\dfrac{9x^2 + 81x - 90}{4x^2 + 32x - 80}$

18) $\dfrac{4x^2 + 8x + 4}{8x^2 - 8}$

Evaluate the following for the given value. Your answer should be a reduced fraction.

19) $\dfrac{10r - 20}{8r - 16}$, $r = 5$

20) $\dfrac{5x^2 - 21x + 18}{2x^2 - 15x + 27}$, $x = -2$