Simplify.

1. $\dfrac{\frac{4n}{9r^3}}{\frac{8n^4}{15r^2}}$

2. $\dfrac{\frac{1}{a} - a}{\frac{3}{a}}$

3. $\dfrac{\frac{7}{x} - 6}{\frac{2}{x} + 3}$

4. $\dfrac{\frac{2}{7x} - \frac{3}{14}}{\frac{3}{14x} - \frac{1}{7}}$

5. $\dfrac{a^2 + \frac{2a}{3}}{\frac{a^2}{6} + 14a}$

6. $\dfrac{\frac{2}{c} + \frac{1}{2c}}{c + \frac{c}{2}}$

7. $\dfrac{\frac{2x}{5} + \frac{3y}{10}}{\frac{3x}{2} - \frac{7y}{10}}$

8. $\dfrac{\frac{c}{3d} - \frac{d}{3c}}{\frac{1}{3c} + \frac{1}{3d}}$

9. $\dfrac{1 + \frac{1}{2a}}{\frac{1}{4a} - a}$

10. $\dfrac{y + 4 + \frac{4}{y}}{y + 1 - \frac{2}{y}}$

11. $\dfrac{9u^4 - \frac{1}{w^2}}{3u^2 + \frac{1}{w}}$

12. $\dfrac{\frac{w}{w-z} - 1}{\frac{w}{w-z}}$

13. $\dfrac{\frac{5}{x+y} + 3}{\frac{3}{x+y} + 7}$

14. $\dfrac{u - 2 - \frac{4}{u-2}}{u - 1 - \frac{2}{u-2}}$

15. $\dfrac{\frac{n}{n-2} - \frac{2}{n+2} - \frac{8}{n^2-4}}{\frac{1}{n-2}}$

16. $\dfrac{\frac{3a}{a^2-9}}{\frac{1}{3-a} - \frac{1}{3+a}}$

17. $\dfrac{9 + \frac{6}{c} + \frac{1}{c^2}}{\frac{3}{c} + \frac{1}{c^2}}$

18. $\dfrac{\frac{1}{p+1} - 1}{\frac{1}{p^2-1} + 1}$

19. $2 - \dfrac{1}{2 + \frac{1}{2 - \frac{1}{a}}}$

20. $2 + \dfrac{1}{2 + \frac{1}{2+x}}$

21. $\dfrac{1}{1 - \frac{1}{2 - \frac{1}{3-r}}}$

22. $\dfrac{\frac{6}{a-2} + \frac{5}{a+2}}{\frac{7}{a^2-4} + \frac{2}{a-2}}$

23. $\dfrac{\frac{y^2+8y+15}{y^2+y-6}}{\frac{y^2+2y-15}{y^2-2y-3}}$

24. $\dfrac{\frac{p+4}{p-6} + \frac{p+1}{p+2}}{\frac{2p^2+3}{p^2-4p-12}}$

25. $\dfrac{x - 2 + \frac{9x+11}{x+3}}{x + 5 + \frac{x-15}{x+4}}$

26. $\dfrac{u - 4}{u - 1 - \frac{15}{u+1}}$

Honors Math 3   Complex Rational Expressions   9/11/2014

1.
Answer: $\frac{5}{6rn^3}$
CodePath: EAS.ALG.L.J.36

2.
Answer: $\frac{1-a^2}{3}$
CodePath: EAS.ALG.L.J.38

3.
Answer: $\frac{7-6x}{2+3x}$
CodePath: EAS.ALG.L.J.46

4.
Answer: $\frac{4-3x}{3-2x}$
CodePath: EAS.ALG.L.J.49

5.
Answer: $\frac{6a+2}{a+84}$
CodePath: EAS.ALG.L.J.55

6.
Answer: $\frac{5}{3c^2}$
CodePath: EAS.ALG.L.J.63

7.
Answer: $\frac{4x+3y}{15x-7y}$
CodePath: EAS.ALG.L.J.70

8.
Answer: $c - d$
CodePath: EAS.ALG.L.J.72

9.
Answer: $\frac{2}{1-2a}$
CodePath: EAS.ALG.L.J.79

10.
Answer: $\frac{y+2}{y-1}$
CodePath: EAS.ALG.L.J.89

11.
Answer: $\frac{3u^2w-1}{w}$
CodePath: EAS.ALG.L.J.91

12.
Answer: $\frac{z}{w}$
CodePath: EAS.ALG.L.J.94

13.
Answer: $\frac{3x+3y+5}{7x+7y+3}$
CodePath: EAS.ALG.L.J.96

14.
Answer: $\frac{u-4}{u-3}$
CodePath: EAS.ALG.L.J.101

15.
Answer: $n - 2$
CodePath: EAS.ALG.L.J.103

16.
Answer: $-\frac{3}{2}$
CodePath: EAS.ALG.L.J.106

17.
Answer: $3c + 1$
CodePath: EAS.ALG.L.J.112

18.
Answer: $\frac{1-p}{p}$
CodePath: EAS.ALG.L.J.116

19.
Answer: $\frac{8a-3}{5a-2}$
CodePath: EAS.ALG.L.J.119

20.
Answer: $\frac{5x+12}{2x+5}$
CodePath: EAS.ALG.L.J.122

21.
Answer: $\frac{2r-5}{r-2}$
CodePath: EAS.ALG.L.J.123

22.
Answer: $\frac{11a+2}{2a+11}$
CodePath: EAS.ALG.L.J.125

23.
Answer: $\frac{y+1}{y-2}$
CodePath: EAS.ALG.L.J.127

24.
Answer: $\frac{p+2}{2p^2+3}$
CodePath: EAS.ALG.L.J.131

25.
Answer: $\frac{x+4}{x+3}$
CodePath: EAS.ALG.L.J.133

26.
Answer: $\frac{u+1}{u+4}$
CodePath: EAS.ALG.L.J.135