Algebraic Fractions

Name:	Class:	Date:

Mark	/ 16	%

1) Simplify the following [9]

a) $\frac{8d+14}{28d+49}$

b) $\frac{3d^2-6d}{2d-4}$

c) $\frac{y^2+12y+32}{y+4}$

d) $\frac{x+7}{x^2-2x-63}$

e) $\frac{x^2+4x+3}{x^2+3x+2}$

f) $\frac{2x}{5}-\frac{x}{5}$

g) $\frac{2x}{9}+\frac{x}{12}$

h) $\frac{x+4}{8}-\frac{x}{7}$

i) $\frac{x-7}{5}-\frac{x-6}{3}$

2) Solve the following algebraic fraction [4]

a) $\frac{1}{7}(z-6)=3$

b) $\frac{9b}{20}=\frac{63}{4}$

c) $\frac{9a}{3}+\frac{a}{6}=19$

d) $\frac{b+10}{6}=\frac{b+9}{9}$

3) Solve the equation and leave your answer as a fraction or a decimal to 3 significant figures [2]

a) $\frac{6}{5a} = 3$

b) $\frac{1}{a+9} = 5$

4) Solve the equation [1]

$5 + z = \frac{24}{z}$

Solutions for the assessment Algebraic Fractions

1) a) $\frac{2}{7}$

b) (3d)/2

c) $y + 8$

d) $\frac{1}{x - 9}$

e) $\frac{x + 3}{x + 2}$

f) $\frac{x}{5}$

g) $\frac{11x}{36}$

h) $\frac{-x + 28}{56}$

i) $\frac{-2x + 9}{15}$

2) a) 27

b) 35

c) 6

d) -12

3) a) 0.4 or $\frac{2}{5}$

b) -8.8 or $-\frac{44}{5}$

4) $z = -8$ or $z = 3$