

## Algebra 1

## 6.6 MPYS modified (Answers)

1. a.  $\frac{1}{4^3}$       b.  $\frac{1}{(-7)^2}$       c.  $\frac{1}{x^5}$

d.  $\frac{12}{x^4}$       e.  $\frac{1}{mn}$       f.  $\frac{-5m^6}{n^9}$

g.  $\frac{3w^8}{4s^7}$       h.  $\frac{6xz^2}{7my}$       i.  $\frac{y}{mx^3z^2}$

2. a.  $y^8$       b.  $5^6$       c.  $8x^3$       d.  $\frac{y^2}{x}$

3. a.  $\frac{3}{2}$       b.  $\frac{17}{72}$

4. a.  $y = 42,576(1 + 0.045)^0$   
b. Her salary 7 years ago  
c.  $y = 42,576(1 + 0.045)^{-15}$   
 $y \approx \$22,000$   
d.  $\frac{42,576}{(1 + 0.045)^7}; \frac{42,576}{(1 + 0.045)^{15}}$

5. a.  $\frac{1}{32}$       b.  $\frac{1}{64}$       c.  $\frac{1}{36}$

d.  $\frac{1}{-8}$       e. 1      f. -5

6.  $\frac{4}{x^3y^9}$       7.  $\frac{12}{a^{12}b^6}$       8. 256      9.  $\frac{1}{16x^8}$       10. 1      11.  $\frac{x^6}{y^8}$

12.  $\frac{3}{m^7}$       13.  $\frac{2h^3}{3j^4k^5}$       14.  $\frac{z^3}{xy^2}$