Writing in Standard Form

Decide whether each of these numbers is in standard form.

(a) 4×10^5 (b) 35×10^6
(c) 6.5×10^{-2} (d) 0.93×10^8
(e) $8 \times 10^{1.5}$ (f) 9.99×10^1

(a) Yes (b) No
(c) Yes (d) No
(e) No (f) Yes

Write these numbers in standard form.

(a) 3000 (b) 900000
(c) 60 (d) 87000000
(e) 789000 (f) 2.5
(g) 0.0009 (h) 0.005
(i) 0.03 (j) 0.000082
(k) 0.0273 (l) 0.79

(a) 3×10^3 (b) 9×10^5
(c) 6×10^1 (d) 8.7×10^7
(e) 7.89×10^5 (f) 2.5×10^0
(g) 9×10^{-4} (h) 5×10^{-3}
(i) 3×10^{-2} (j) 82×10^{-5}
(k) 2.73×10^{-2} (l) 7.9×10^{-1}

Write as ordinary numbers.

(a) 2×10^5 (b) 7×10^8
(c) 8×10^2 (d) 1.2×10^7
(e) 3.46×10^5 (f) 7.05×10^1
(g) 9×10^{-6} (h) 7×10^{-2}
(i) 5×10^{-7} (j) 3.1×10^{-3}
(k) 5.4×10^{-4} (l) 6.53×10^{-8}
(m) 1.85×10^{-1} (n) 3.216×10^0

(a) 200000 (b) 700000000
(c) 800 (d) 12000000
(e) 346000 (f) 70.5
(g) 0.000009 (h) 0.07
(i) 0.0000005 (j) 0.0031
(k) 0.00054 (l) 0.000000653
(m) 0.185 (n) 3.216

Convert each of these numbers into standard form.

(a) 25×10^4 (b) 870×10^3
(c) 0.6×10^5 (d) 60×10^{-3}
(e) 0.9×10^{-8} (f) 0.05×10^{-5}

(a) 2.5×10^5 (b) 8.7×10^5
(c) 6×10^4 (d) 6×10^{-2}
(e) 9×10^{-9} (f) 5×10^{-7}

Write each of these scientific numbers in standard form.
'There are between 100 billion and 400 billion stars in our galaxy. The milky way galaxy is 13.51 billion years old. '

100 billion = 1×10^{11}
400 billion = 4×10^{11}
13.51 billion = 1.351×10^{10}