1a) 32
b) 5
c) 10
d) 10
e) 5
f) 1
g) 31, no, we never accounted for the empty set
h) {Ø, {j}, {h}, {n}, {s}, {c}, {j, h}, {j, n}, {j, s}, {j, c}, {h, n}, {h, s}, {h, c}, {n, s}, {n, c}, {s, c}, {j, h, n}, {j, h, s}, {j, h, c}, {j, n, s}, {j, n, c}, {j, s, c}, {h, n, s}, {h, n, c}, {h, s, c}, {n, s, c}, {j, h, n, s}, {j, h, n, c}, {j, h, s, c}, {j, n, s, c}, {j, h, n, s, c}}

2a) 0
b) 1
c) {Ø}
d) 1
e) 2
f) {Ø, {Ø}}
g) 2
h) 4
i) {Ø, {Ø}, {{Ø}}, {Ø, {Ø}}}
l) D has 4 elements, so its power set has 16.
{
Ø,
{Ø}, {{Ø}}, {{{Ø}}}, {{Ø, {Ø}}},
{Ø, {Ø}}, {Ø, {{Ø}}}, {Ø, {Ø, {Ø}}}, {{Ø}, {{Ø}}}, {{Ø}, {Ø, {Ø}}}, {{{Ø}}, {Ø, {Ø}}},
{Ø, {Ø}, {{Ø}}}, {Ø, {Ø}, {Ø, {Ø}}}, {Ø, {{Ø}}, {Ø, {Ø}}}, {{Ø}, {{Ø}}, {Ø, {Ø}}},
{Ø, {Ø}, {{Ø}}, {Ø, {Ø}}}
}

3) First line: (e + *f* + g + h + i + j + k + l) + (*f* + g + k + l + m + n + o + p)
+ (i + j + k + l + o + p + q + r) + (g + h + j + l + n + p + q + s)
Second line: (*f* + g + k + l) + (i + j + k + l) + (g + h + j + l)
+ (k + l + o + p) + (g + l + n + p) + (j + l + p + q)
Third line: (k + l) + (g + l) + (j + l) + (l + p)
Fourth line: l

First line combined: (e + 2*f* + 3g + 2h + 2i + 3j + 3k + 4l + m + 2n + 2o + 3p + 2q + r + s)
Second line combined: (*f* + 3g + h + i + 3j + 3k + 6l + n + o + 3p + q)
Third line combined: (g + j + k + 4l + p)

(e + 2*f* + 3g + 2h + 2i + 3j + 3k + 4l + m + 2n + 2o + 3p + 2q + r + s) –
(*f* + 3g + h + i + 3j + 3k + 6l + n + o + 3p + q) + (g + j + k + 4l + p) – (l)

= e + *f* + g + h + i + j + k + l + m + n + o + p + q + r + s