A2 Derived and Base SI Units

Express the following derived units in terms of the SI base units. The first one has been done for you:

	Derived Unit	in Base Units	Power of each base unit			
			m	s	kg	A
	$m\ s^{-2}$	$m\ s^{-2}$	1	-2	0	0
A2.1	J		(a)	(b)	(c)	(d)
A2.2	N		(a)	(b)	(c)	(d)
A2.3	C		(a)	(b)	(c)	(d)
A2.4	V		(a)	(b)	(c)	(d)
A2.5	Ω		(a)	(b)	(c)	(d)
A2.6	Pa		(a)	(b)	(c)	(d)
A2.7	$N\ C^{-1}$		(a)	(b)	(c)	(d)
A2.8	$V\ m^{-1}$		(a)	(b)	(c)	(d)

Express the following derived units in terms of the unit specified and base units. The first one has been done for you.

A2.9 a) Express the ohm in terms of the volt and base units: $\Omega = \mathrm{V\,A^{-1}}$

b) Express the joule in terms of the newton and base unit(s).

c) Express the pascal in terms of the joule and base unit(s).

d) The answer to (c) means that pressure in effect measures an amount of energy per unit _____

e) Express the $\mathrm{V\,m^{-1}}$ in terms of the joule and base unit(s).

f) Express the unit of density in newtons and base unit(s).