Name……………………………………..Number…………Class…………..

SPECIFIC LATENT HEAT   Worksheet

■ Q= ML

_____

Questions

1. Calculate the specific latent heat of fusion if:

   a. 28,000 J is supplied to turn 2 kg of solid oxygen into a liquid at -219°C

   Formula Q = ml

   Q = [   ]

   M = [   ]

   l= [   ]

   We get

   [   ] = [   ]

   Ans [   ]

   b. 183,600 J is supplied to turn 3.4 kg of solid sulphur into a liquid at 115°C

   Formula Q = ml

   Q = [   ]

   M = [   ]

   l= [   ]

   We get

   [   ] = [   ]

   Ans [   ]

SPECIFIC LATENT HEAT   Worksheet

■ Q= ML

c. 6600 J is supplied to turn 600g of solid mercury into a liquid at -39℃

Formula Q = ml

Q =

M =

l=

We get

| | = | |

Ans

d. 67,000 J is supplied to turn 200 g of ice into a liquid at 0℃

Formula Q = ml

Q =

M =

l=

We get

| | = | |

Ans

Name………………………………………Number…………Class…………

SPECIFIC LATENT HEAT   Worksheet

■ Q= ML

2. Calculate the specific latent heat of vaporization if:

    a. 335,200 J is supplied to turn 400 g of liquid ethanol into a gas at 78℃

    Formula Q = ml

    Q = [_____]

    M = [_____]

    l= [_____]

    We get

    [_____] = [_____]

    Ans [_____]

    b. 987,800 J is supplied to turn 2.2 kg of liquid hydrogen into a gas at -253℃

    Formula Q = ml

    Q = [_____]

    M = [_____]

    l= [_____]

    We get

    [_____] = [_____]

    Ans [_____]

SPECIFIC LATENT HEAT   Worksheet

■ **Q= ML**

c. 53.25 kJ is supplied to turn 250 g of liquid oxygen into a gas at -183℃

Formula Q = ml

Q =

M =

l=

We get

=

Ans

d. 7,620 J is supplied to turn 30 g of liquid chloroform into a gas at 62℃

Formula Q = ml

Q =

M =

l=

We get

=

Ans

SPECIFIC LATENT HEAT   Worksheet

■ Q= ML

3. How much energy is needed to turn 2 kg of water, at 100℃ into steam at 100℃? (specific latent heats of steam 2256 kJ/Kg)

Formula Q = ml

Q = ⬚

M = ⬚

l= ⬚

We get

⬚ = ⬚

Ans ⬚

4. How much heat energy is given out when 500 g of steam at 100℃ condensation at 100℃? (specific latent heats of condensation 2256 kJ/Kg)

Formula Q = ml

Q = ⬚

M = ⬚

l= ⬚

We get

⬚ = ⬚

Ans ⬚