

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

SPECIFIC LATENT HEAT Worksheet

$$\blacksquare Q = ML$$

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

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$$\blacksquare Q = ML$$

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

Formula $Q = ml$

Q =	
M =	
l =	

We get

	=	
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Ans

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

Formula $Q = ml$

Q =	
M =	
l =	

We get

	=	
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Ans

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$$\blacksquare Q = ML$$

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°C

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°C

Formula $Q = ml$

$Q =$

$M =$

$l =$

We get

=

Ans

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■ $Q = ML$

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

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°C

Formula $Q = ml$

$Q =$

$M =$

$l =$

We get

=

Ans

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SPECIFIC LATENT HEAT Worksheet

■ $Q = ML$

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

Formula $Q = ml$

Q =
M =
l =

We get

=

Ans