

0	1
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Gold is a valuable metal that is used for making jewellery. The purity of gold is rated in carats.

Table 1 shows the composition of two pieces of metal to be used for making jewellery.

Table 1

Metal	Rating	% Composition
1	24 carat	100% gold
2	18 carat	75% gold, 16% silver, and copper

0	1
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 .

1

Give the percentage of copper in **Metal 2**.

[1 mark]

.....

Percentage of copper = %

0	1
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 .

2

Give three differences you would expect between jewellery made from **Metal 2** compared to **Metal 1**.

[3 marks]

Difference 1

.....

Difference 2

.....

Difference 3

.....

0	1
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 .

3

Metal 2 is an alloy.

What is an alloy?

[2 marks]

.....

.....

0	1
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 .

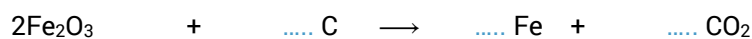
4

The reaction used to extract iron from iron oxide in the blast furnace is shown below.

The equation is **not** completely balanced.

Finish balancing the equation.

[1 mark]



Questions continue on next page...

0	2
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One type of polymer is made of long chain molecules made from crude oil.

Thermosoftening polymers melt when heated.

0	2	.	1
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Explain why.

Include a description of the structure and bonding in a thermosoftening polymer in your answer.

[4 marks]

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0	2	.	2
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Thermosetting polymers can also be made from crude oil. Name one suitable use of a thermosetting polymer.

[1 mark]

.....

(Total 12 marks)

End