

# KEYS

1 (a) The ant-mimic jumping spider, *Myrmarachne formicaria*, is shown in Fig.

The common name of this species describes its behaviour. It is an arachnid that tricks its prey because it looks like the insects that it eats.



Fig. 1.1

(i) Suggest which trophic level in a food chain *M. formicaria* could belong to.

..... [1]

(ii) State the genus of the spider shown in Fig. 1.1.

..... [1]

(iii) Some keys use paired choices of features to identify species such as the ant-mimic jumping spider.

State the name of this type of key.

..... [1]

## MARKING SCHEME:

(a)(i)	(level) 3 / tertiary / secondary <u>consumer</u> ;	1
(a)(ii)	<i>Myrmarchne</i> ;	1
(a)(iii)	dichotomous (key) ;	1

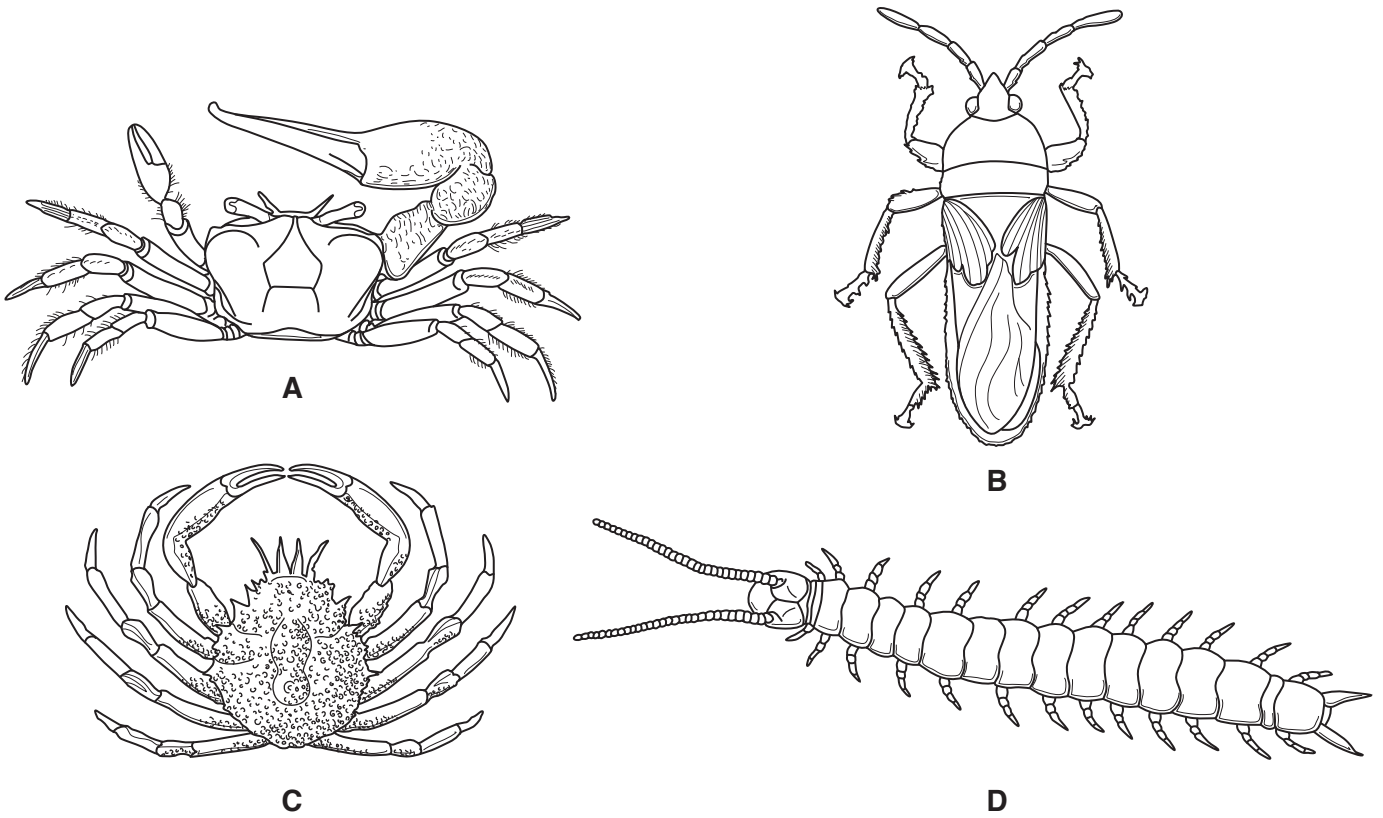
### Expert solution:

1(a) *M. formicaria* belongs to the tertiary level

(b) *Myrmarchne* if the genus of the spider

(c) The key is the dichotomous key

2 (a) Fig. 1.1 shows four arthropods.



not to scale

Fig. 1.1

(i) State **two** features, visible in Fig. 1.1, that are common to all arthropods.

- 1 .....
- 2 .....

[2]

(ii) Fig. 1.2 is a dichotomous key for the arthropods shown in Fig. 1.1.

Complete Fig. 1.2 by writing suitable statements in:

- box 2 to identify species **B**
- box 3 to separate species **C** and **A**.

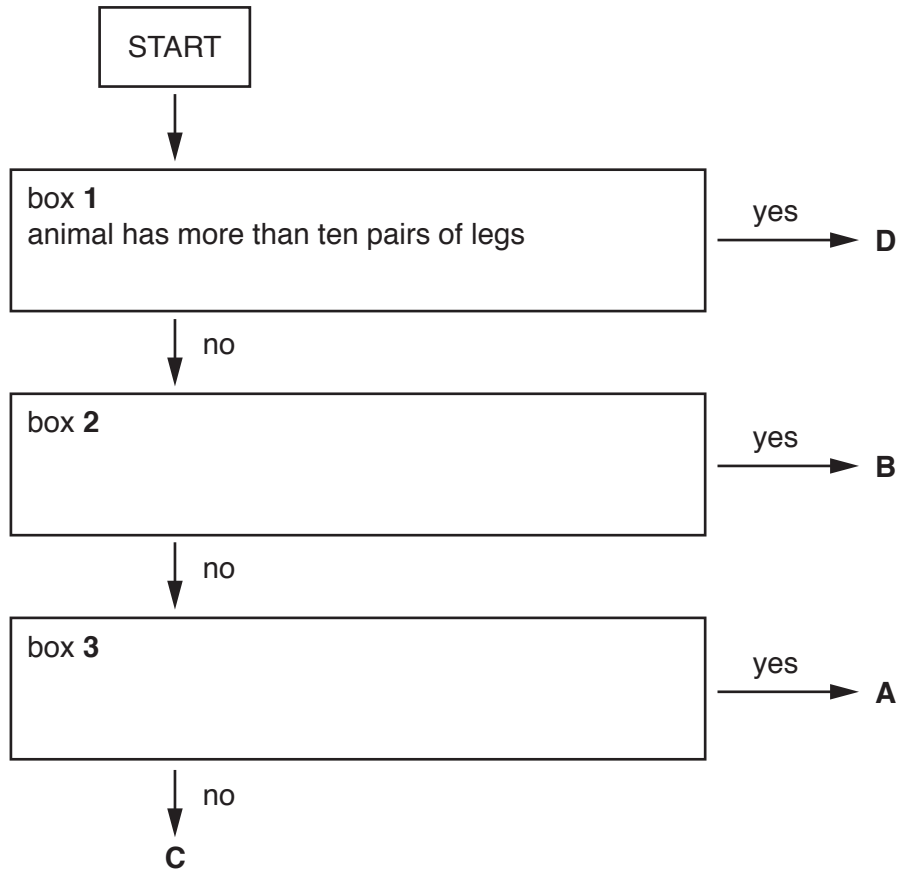


Fig. 1.2

[2]

## MARKING SCHEME:

(a)(i)	exoskeleton / AW ; jointed / segmented, limbs / legs / appendages / AW ; pairs of, limbs / legs / appendages / AW ; segmented (body) / AW ; bilateral body symmetry ;	2	
(a)(ii)	<p><b>Box 2:</b> any one from: animal has, 3 pairs of legs / 6 legs / less 4 pairs of legs / less than 8 legs ; wings ; head, thorax, abdomen / body in three sections ; no, pincers / claws / carapace ;</p> <p><b>Box 3:</b> any one from: (animal has) claws / pincers, of different sizes / AW ; eyes on stalks ; smooth, carapace / body / 'shell' ; body, has five sides / is angular ; hairs / bristles / AW, on, legs / claws ;</p>	2	

### Expert solution:

2(a)(i) Two features that are common to all arthropods are:

1. Exoskeleton
2. Pairs of limbs

**Other acceptable answers are: Segmented body[or]bilateral body symmetry[or] jointed limbs**

(q)(ii) Identifying and completing the key will be possible only if you know the body parts of the organisms well. So study your concepts well to answer them perfectly.