1 Fig. 2.1 shows an arthropod.

× 2.5

Fig. 2.1

(a) You are going to calculate the actual length of the part of the leg that is marked **ST** in Fig. 2.1.

Measure the length of line **ST**.

length of line **ST** ..... mm

Calculate the actual length of the part of the leg that is marked **ST**.

Show your working.

actual length of leg ..... mm [3]

(b) Use features, **visible** in Fig. 2.1, to identify the group of arthropods to which this animal belongs.

Give **two** reasons for your answer.

Group .....

reason 1 .....

.....

reason 2 .....

..... [3]

[Total: 6]

MARKING SCHEME:

(a)	length of line 10 mm; formula – ST length ÷ magnification 10 / 2.5; actual length of leg – 4.0 mm;	[3]	**A** ±1 mm. **A** word formula. 3.6, 4.0, or 4.4 mm if line ST is 9, 10 or 11mm.
(b)	*Group* – arachnid / arachnida / spiders; *reasons* – eight /8 legs / 4 pairs of leg; two /2 parts to body / cephalothorax and abdomen;	[3]	If incorrect group – allow one feature for that group visible in Fig. Ignore negative features / ref to teeth / 2 **segments.** Accept 2 parts to body.