

MONOCOTS AND DICOTS

1 Fig. 1.1A shows a buttercup, *Ranunculus cymbalaria*. Fig. 1.1B shows details of a flower of the same plant.



Fig. 1.1

(a) Explain, **using only features visible in Fig. 1.1**, why *Ranunculus cymbalaria* is classified as a dicotyledonous plant rather than as a monocotyledonous plant.

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..... [2]

MARKING SCHEME:

(a)	broad leaves / <i>Ranunculus</i> does not have narrow leaves / AW ; branched veins / not parallel veins ; flower parts, in 5s / not in 3s ; R 'flowers in fives'	[max 2]	A wide / large surface area A net(work) of veins / reticulate I two cotyledons
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2 Wheat plants are monocotyledons.

State **one** feature of monocotyledons that can be used to distinguish them from dicotyledons.

..... [1]

MARKING SCHEME:

<p><i>one from:</i> one, cotyledon / embryonic leaf / seed leaf oblong leaves / narrow leaves / straight leaves parallel-veined leaves / straight veins (named) flower parts in multiples of three fibrous roots / adventitious roots scattered vascular bundles in stem AVP ;</p>	<p>1</p>	
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3

(a) Name **one** feature of dicotyledonous leaves that distinguishes them from monocotyledonous leaves.

.....[1]

MARKING SCHEME:

(branching) veins; ora shape/broad (leaves); ora	1	1 petioles
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