QUESTIONS AND ANSWERS
JOINING METALS - 1

This mobile revision pdf is based on detailed work found in the 'MATERIALS' and 'EQUIPMENT' sections.
Tap on the green and yellow link buttons below to go to the website.

Tap the blue button to view all work covered by this Revision PDF

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QUESTIONS AND ANSWERS
JOINING METALS - 1

HOW TO USE THIS REVISION PDF

Read and attempt answering each question, before following the link to a potential answer. Also, consider working in pairs.

QUESTIONS ONE TO FIVE

(Bolts)

QUESTIONS SIX TO TEN

(Riveting)

QUESTIONS ELEVEN TO FIFTEEN

(Temporary joints for tube)

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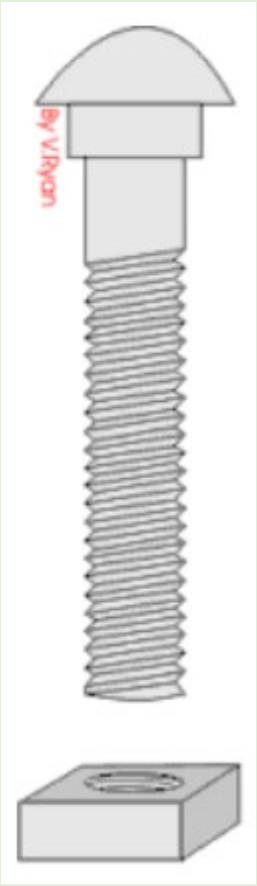
QUESTION 1a

Name the ‘bolt’ shown below and explain why/ when it is used.

Tap the image a potential answer



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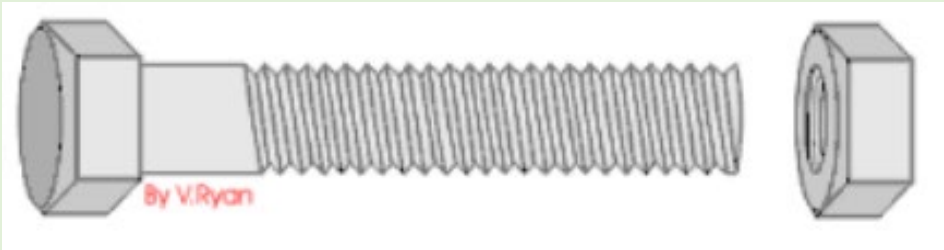
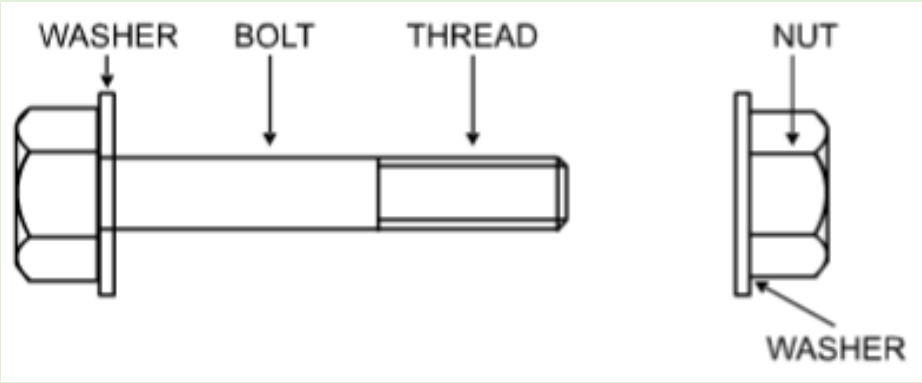
QUESTION 1b

A Machine Bolt is seen below. **Produce a labelled sketch, that shows how it is used to join two metal blocks.**

Tap the image a potential answer





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QUESTION 1c

Sketch a machine bolt that has a countersunk head, with a wingnut.

Tap the image a potential answer

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QUESTION 2a

Describe one advantage of using a 'wingnut', over a nut that requires a spanner.

Tap the image a potential answer

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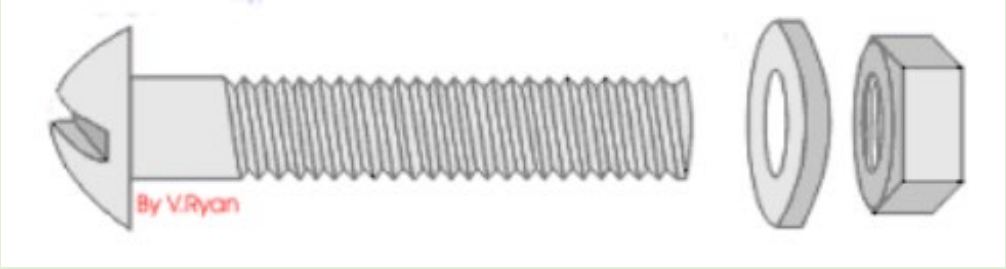
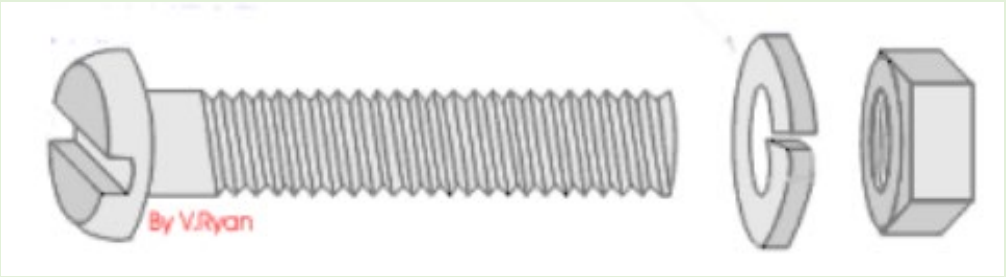
QUESTION 2b

Name these two types of bolts.

Tap the image a potential answer





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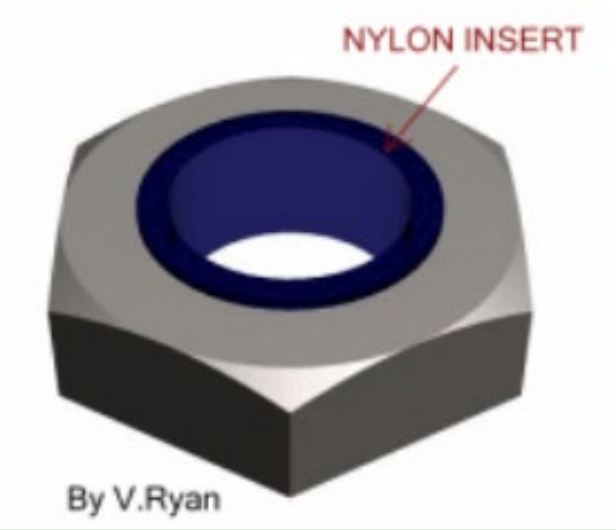
QUESTION 2c

Why are Lock Nuts sometimes used, with a bolt?

Tap the image a potential answer



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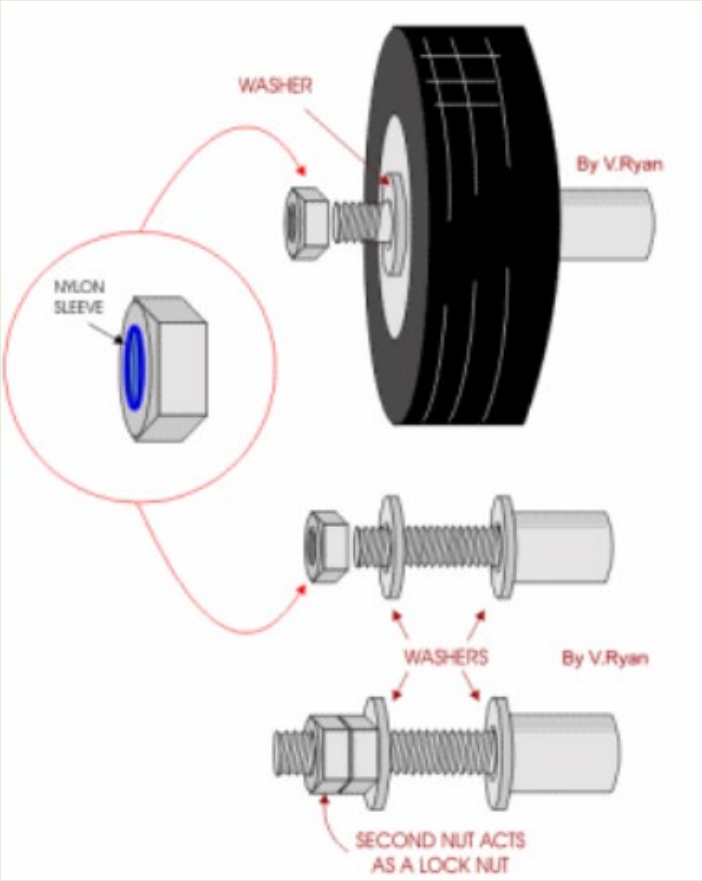
QUESTION 3a

Explain why a lock nut is used for the practical application shown below.

Tap the image a potential answer



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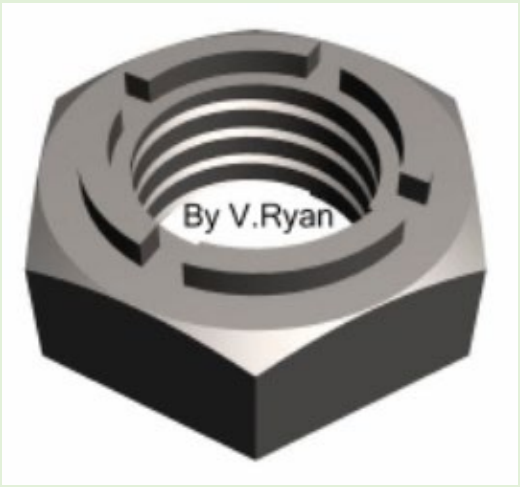
QUESTION 4

Explain why combination lock nuts and split pins are sometimes used.

Tap the image for a potential answer



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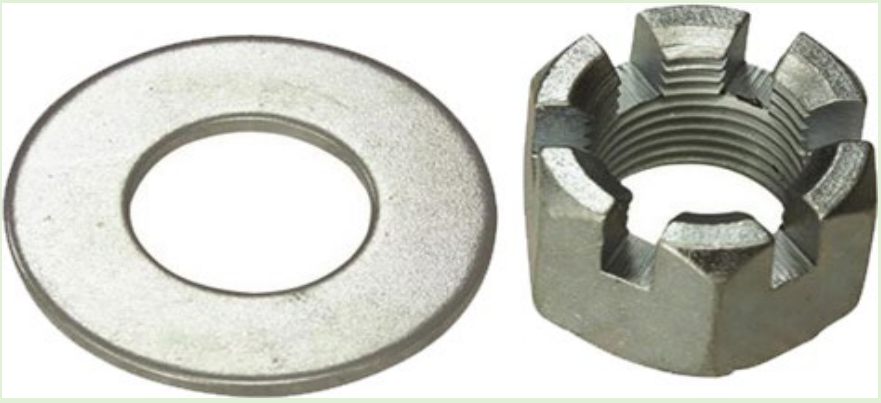
QUESTION 5

Produce a sketch showing how a combination lock nut and split pin look, when used together.

Tap the image for a potential answer



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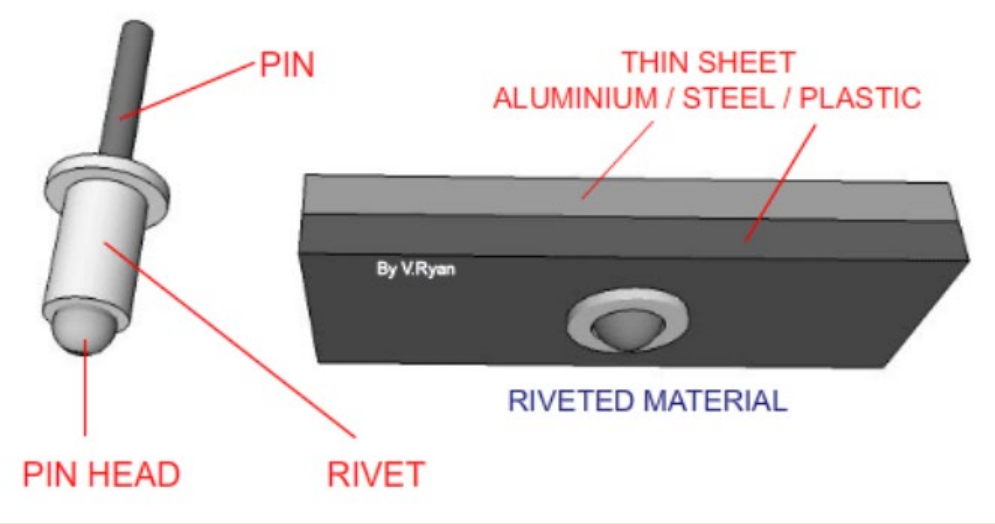
QUESTION 6a

What is pop riveting?

Tap the image for a potential answer



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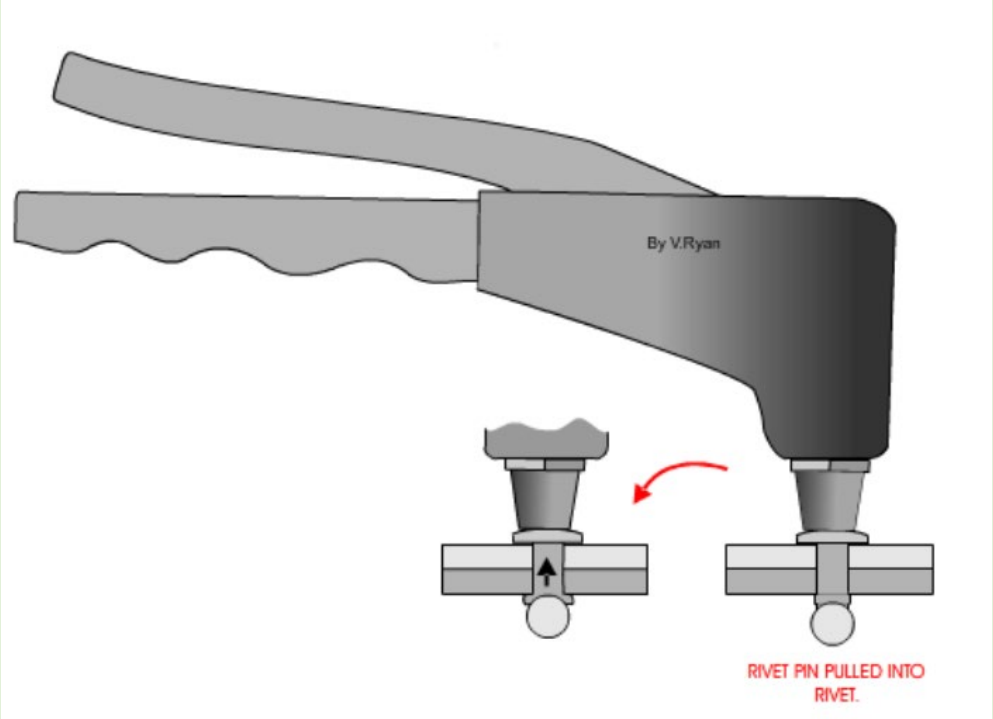
QUESTION 6b

Describe the pop riveting process, stage by stage. Include quick, clear sketches and notes.

Tap the image for a potential answer



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QUESTION 7

Cold rivets are used to joint steel plates.

Name the four types of cold rivet shown below.

Tap the image for a potential answer

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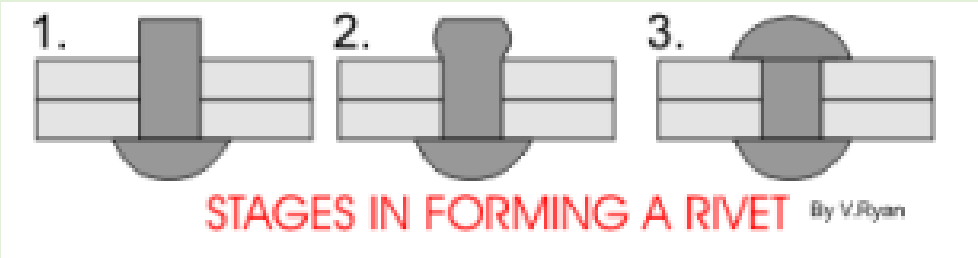
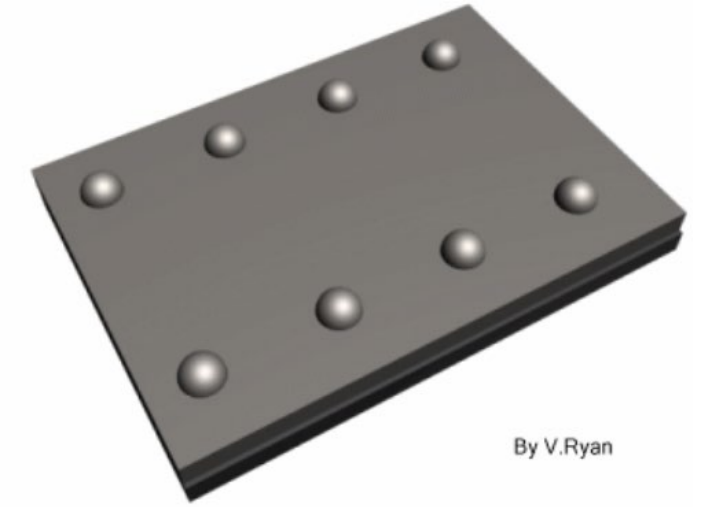
QUESTION 8

Sketch two steel plates joined by cold rivets.

Tap the images for a potential answer





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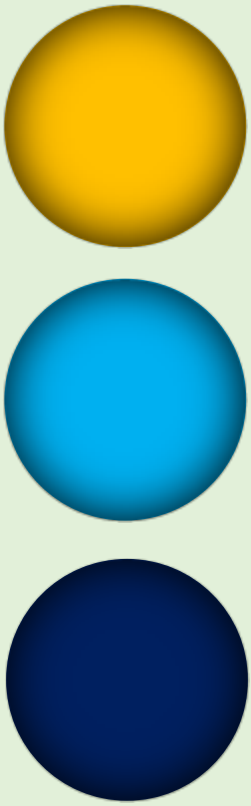
QUESTION 9

Sketch the process of cold riveting, stage by stage. Add notes to each sketch.

Tap the link buttons for a potential answer



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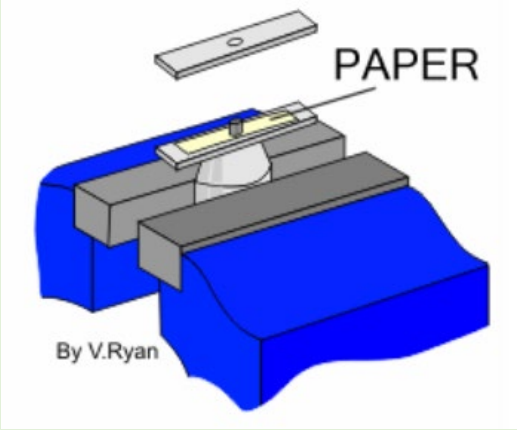
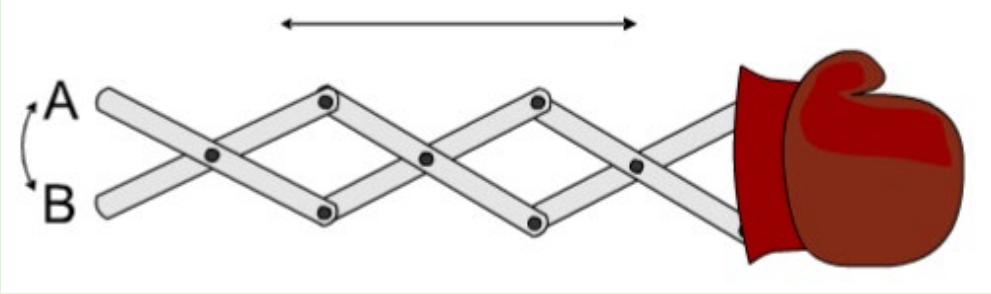
QUESTION 10

Describe how movable joints can be achieved, through the use of cold rivets?

Tap the image for a potential answer





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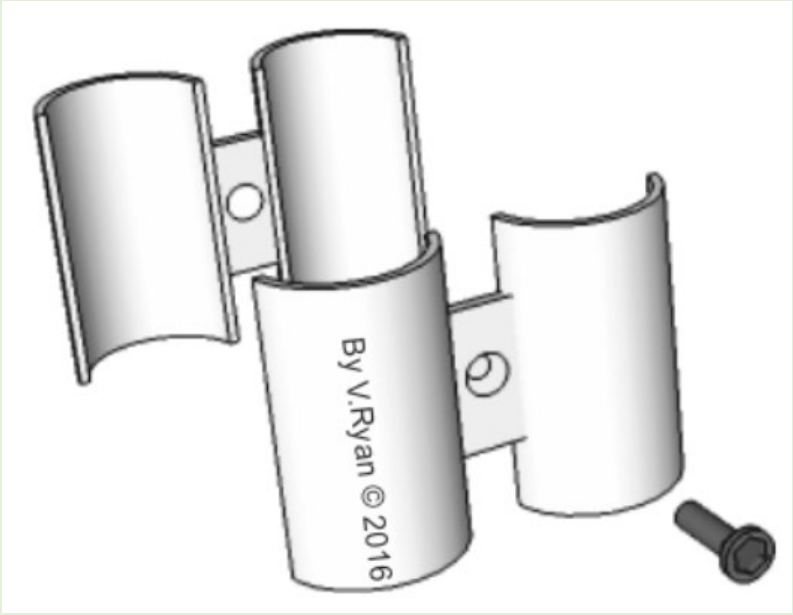
QUESTION 11

Sketch a 'Parallel Joint', for use with two lengths of tube. Explain how it works. Show the tube in position.

Tap the image for a potential answer



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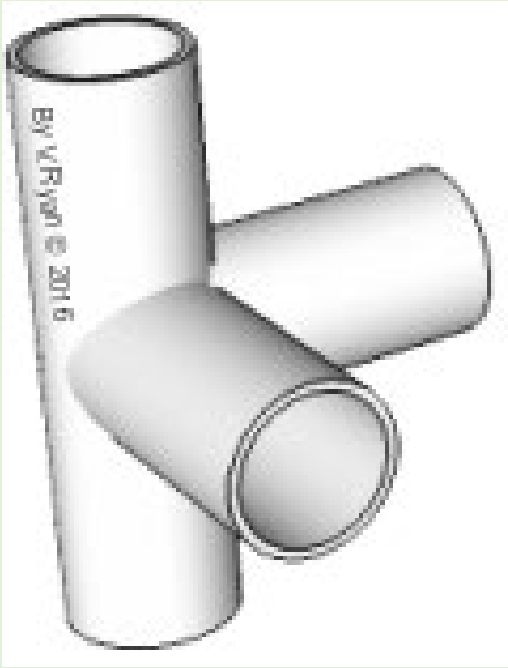
QUESTION 12

Sketch a Four Way Joint, commonly used with tube. Explain how it works. Show the tube in position.

Tap the image for a potential answer



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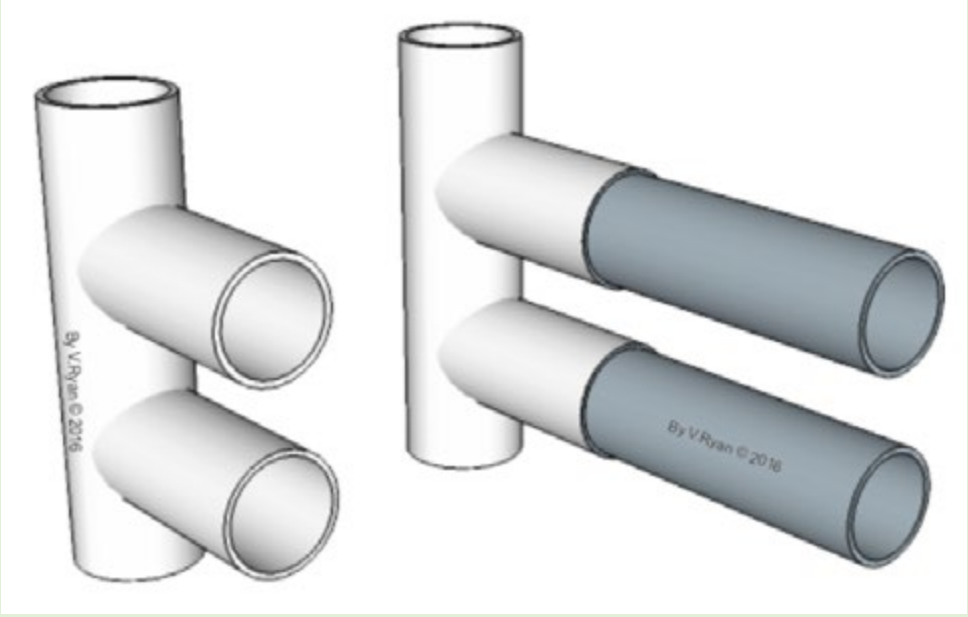
QUESTION 13

What is the name of this joint? Describe its use.

Tap the image for a potential answer



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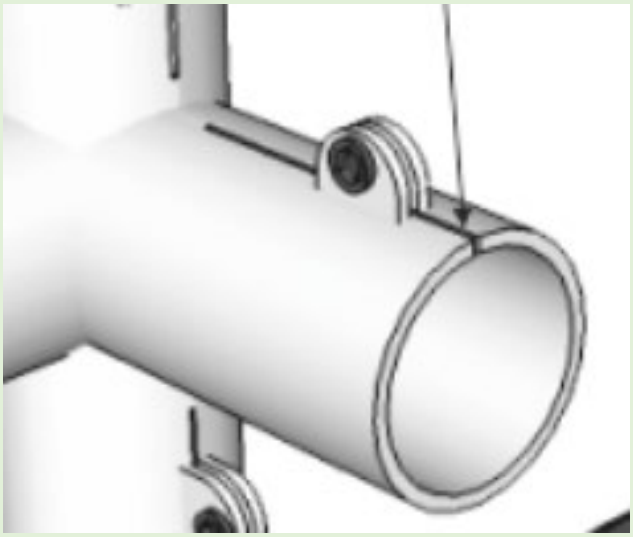
QUESTION 14

Part of a ‘split tube joint’ is shown below.

Sketch the entire joint and explain how it works.

Tap the image for a potential answer



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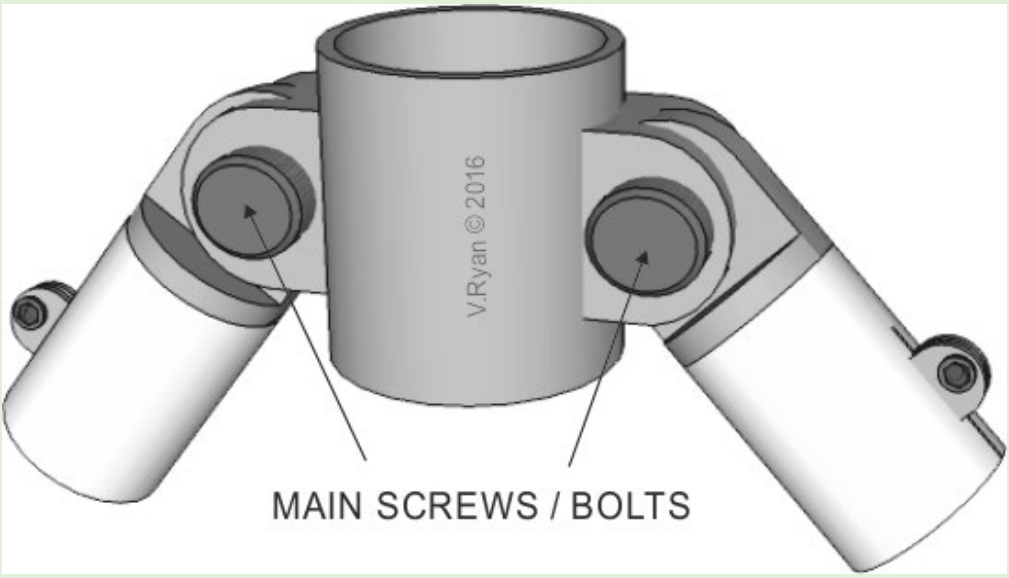
QUESTION 15

This is an ‘adjustable joint’.

What is an advantage of using this type of joint?

Tap the image for a potential answer



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