

NUTS AND BOLTS

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On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

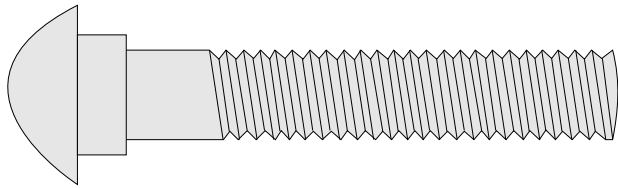
The 'Nuts and Bolts Exercise' can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet.

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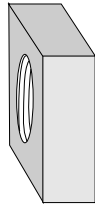
TYPES OF BOLTS

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COACH BOLT

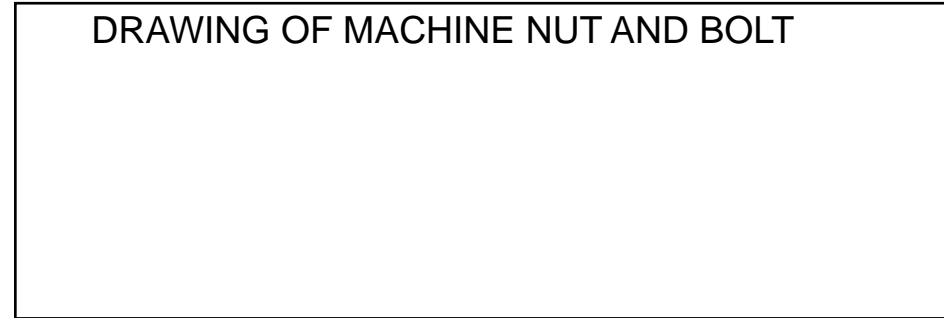


SQUARE/FLAT NUT



1. The bolt seen opposite is a typical coach bolt. Write a description of this type of bolt, include a typical use.

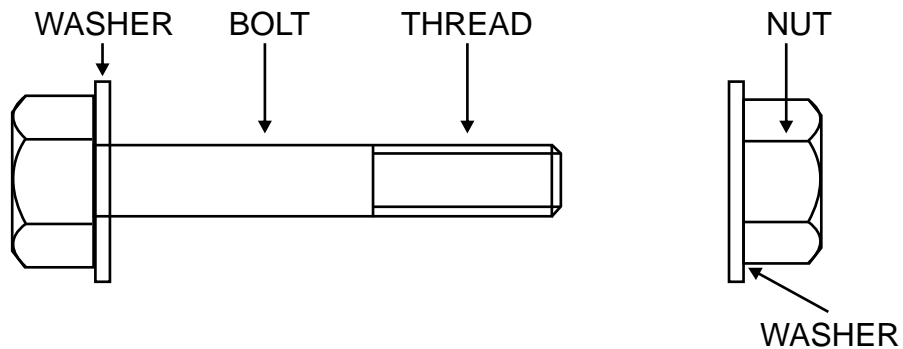
DRAWING OF MACHINE NUT AND BOLT



2. This is a typical description of a Machine Bolt: "Two spanners are needed to tighten the nut and bolt. The first spanner fits round the hexagonal head of the bolt and a second spanner is used to tighten the hexagonal nut".

Sketch a machine nut and bolt in the space opposite.

An engineering drawing of a machine bolt is seen below. This is how it would appear on an orthographic drawing, ready for a factory to manufacture.



3. Below is a drawing of two blocks of steel. They have been drilled so that a machine bolt can be pass through them and a nut used to fix them together securely.

Draw the nut, bolt and washers in position.

