


Mathematics in Education and Industry


50 years at the forefront of Mathematics Education



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When can you incorporate problems?

How might you classify problems?




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When can you incorporate problems?

- Lesson starter / entry work / bell work
- Main part of lesson
- End of lesson
- Spare minutes in the lesson
- Homework task
- Pastoral time / newsletter / website etc

How might you classify problems?

- Short 'brain teasers'
- Functional / real life
- Investigative



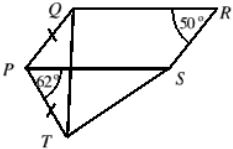
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Short 'brain teasers'

A car goes 1 mile up a hill at 15mph and 1 mile down at 30mp. What is its mean speed?

The time shown on a digital clock is 5:55. How many minutes will pass before the clock next shows a time for which all the digits are the same??

In the diagram, PQRS is a parallelogram. $\angle QRS=50^\circ$; $\angle SPT=62^\circ$ and $PQ=PT$. What is the size of $\angle TQR$?



Short 'brain teasers'

A car goes 1 mile up a hill at 15mph and 1 mile down at 30mp. What is its mean speed?

The creative use of odd moments, D French

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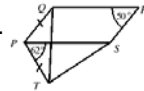
How many minutes will pass before the clock next shows a time for which all the digits are the same??

<http://nrich.maths.org/weekly>

In the diagram, PQRS is a parallelogram.

$\angle QRS = 50^\circ$; $\angle SPT = 62^\circ$ and $PQ = PT$.

What is the size of $\angle TQR$?



<http://www.ukmt-resources.org.uk>

Diagonals

Geoboards





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Beakers investigation

Teaching & Learning Geometry (Doug French)

Glassware (dy/dan blog)

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| | | |
|--|--|---|
| Can you draw a helpful diagram?  | Can you identify areas of maths which might be helpful?  | Can you estimate the solution first? ↓ What result do you think would be too low? ↑ What result do you think would be too high? |
| Are there any findings you can record in a table? Would this be helpful? | Can you try out a few easy examples? 1. = 2. = | Do you need to decide which information will be useful? |
| | | Do you want to outline a plan for solving this problem? |

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