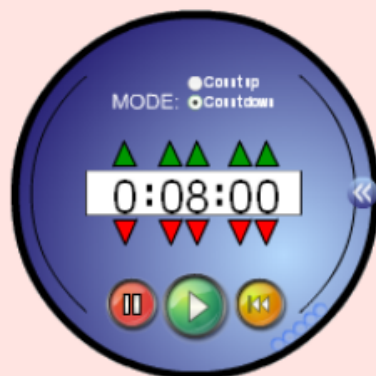


Ratio revisited

page 213 A1-A6



Delivering the Paper

Oliver is paid
£5 pw plus
10p per paper.

Jonathan is
paid 15p per
paper.

Matthew is
paid £4.00 for
delivering 50
papers.

Jack is paid £6.60
for delivering 30
papers. Find out
how much he
would get paid for
delivering 18
papers.

David is paid £3.50
for delivering 25
papers. Find out
how much he
would get paid for
delivering 21
papers.

Jess is paid £2.47
for delivering 19
papers. Find out
how much she
would get paid for
delivering 42
papers.

How many examples can you think of, demonstrating direct proportion?

page 215

ppt

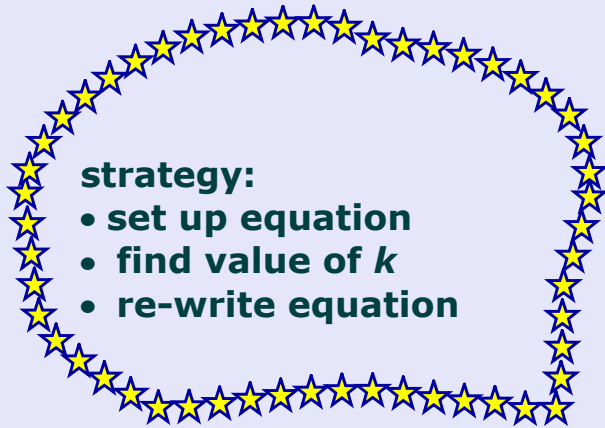
Page 216-218

Direct Proportion

The value **V** of a diamond is proportional to the square of its mass **M**.

If a diamond with a mass of 5 g is valued at £100 find:

- The value of a diamond with a mass of 20 g.
- The mass of a diamond with a value of £2500.



The energy of a moving body is **E**, is proportional to the square of its speed **S**.

If a body has 90 units of energy when it is moving at 3m/s, calculate:

- How many units of energy it has at a speed of 8 m/s
- The speed of a body with 810 units of energy.

see ppt

Indirect Proportion

The air pressure **P** that is delivered by a bicycle pump is inversely proportional to the square of its diameter **D**. If 8 units of pressure is delivered by a 20 mm diameter pump, find:

- (a) The pressure delivered by an 18 mm pump.
- (b) The diameter of a pump delivering 6 units of pressure.

The force of attraction **F**, between two magnets is inversely proportional to the square of their distance apart **D**. When the magnets are 2 cm apart the force of attraction is 24 units. Find:

- (a) The force of attraction between two magnets that are $\frac{1}{2}$ cm apart.
- (b) The distance between two magnets when the force of attraction is 6 units.

pages 219 - 222 odd nos only

Finding a relationship

$$\begin{aligned}y &\propto x \\y &\propto x^2 \\y &\propto \sqrt{x} \\y &\propto 1/x\end{aligned}$$

x	2	4	6	8
y	1	2	3	4

x	4	16	25	100	400
y	6	12	15	30	60

x	2	4	6	30
y	1.5	0.75	0.5	0.1

x	2	4	6	8
y	20	80	180	320

Attachments

Proportion (Direct).ppt

Proportion (Inverse).ppt