# RIG@UR <br> by cdmasterworks Ltd 

Numeracy for Learning, Life and Work

## December National Maths Calendar

2 Solve the following
system of equations...

| $5 x+4 y=23$ |
| :---: |
| $2 x+3 y=5$ |
| 8 |
| Add the |
| following fractions... |
| $\frac{6}{(x-2)}-\frac{5}{(x+4)}$ |


| $3 \begin{array}{r}\text { Write the } \\ \text { following in the }\end{array}$ form... $\begin{gathered} y=(x+a)^{2}+b \\ y=x^{2}+6 x+4 \end{gathered}$ | depreciates in value at a rate of $3.8 \%$ p.a. It was worth £400. How much will it be worth in | $2 \frac{1}{2} x$ | $6 \underset{\sqrt{10}}{ } \begin{array}{r}\text { Express the } \\ \text { following with } \\ \text { a rational } \\ \text { denominator } \\ \text { and simplify } \\ \text { if required... }\end{array}$ |
| :---: | :---: | :---: | :---: |
|  | 10 Evaluate. $1000^{\frac{2}{3}}$ | 11 Solve the following inequality... $9-2 x<17$ | 12 Calculate the semi-interquartile range for the following data set... $2,5,8,10,11,11,11,14$ |
|  |  |  | subject of the formula to b... $a=\frac{\sqrt{b}-2}{3}$ |
| standard deviation for the following data set... $63,65,66,67,69$ | $22$ <br> Solve $x^{2}-8 x+3=0$ <br> giving your solutions to 1 decimal place... | defined as $f(t)=4 t-1$ <br> For what value of $t$ does $f(t)=11$ ? | 24 of the missing side... $\square$ |
| 27 Solve the equation $\begin{gathered} 5 \cos x^{\circ}+2=1 \\ \text { for } 0 \leq x \leq 360 \end{gathered}$ | gradient and the $y$-intercept of the following equation... $3 x-2 y=4$ |  |  |

1 Multiply out the following brackets and simplify...
$(2 x+5)(x-3)-7 x$

7 Write the following in it's simplest $3 n^{4} \times 4 n^{2}$ form $\ldots$
$6 n^{5}$


19
Factorise...
$3 x^{2}-48$

## 25

Round 25122017 to 2 significant figures.

## 31

Show that
$\sin x \tan x=\frac{\sin ^{2} x}{\cos x}$

