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| **Green** | **Amber** | **Red** |
| *P* = 3*n**n* = 6Work out the value of *P*. | *v* = 15 – 10*t**t* = 4 Work out the value of *v*. | *y* = 5*x* – 3Find the value of *x* when *y* = 4 | *p* = 5*r* = 2Work out the value of 4*pr* - 7 |
| *v* = *u* + 10*t*Work out the value of *v* when*u =* 10 and *t* = 7 | Q = 2c + 5dc = 3d = 2Work out the value of *Q*. | *T* = 5*p* - 3*q*Work out the value of *T*when *p* = 2 and *q* = 4 | *p* = 3*t* + 4(*q* – *t*)Find the value of *q* when *p* = 6 and *t* = 5 |
| Work out the value of 5*x* + 1 when *x* = –3 | Work out the value of 2*a* + *ay* when *a* = 5 and *y* = –3 | *S =* 2*p +* 3*q**p =* –4 *and q =* 5 Work out the value of *S.* | *v* = *u* + 10*t*Work out the value of *v* When *u* = –2.5 and *t* = 3.2 |
| Work out the value of  when *p* = 2 and *q* = –7 | *A* = 3*c* - 5*d* *c* = 9*d*  = –3Work out the value of *P*. | *C* = 5*p* – 4*q**p* = 3*q* = -4.5Work out the value of *C*. | *P* = 3(*a* - 4*b*) *a* = 10*b* = –2Work out the value of *P*. |
| *p =* 2Work out the value of 5*p*3 | Work out the value of 5*t*2 *–* 75 when *t =* 4 | Work out the value of 2b3 - 3bWhen b *=* 2 | *S* = ½*at*2Find the value of *S* when *t* = 3 and *a* = ¼ |
| *T =* 2*m* + 30*T =* 40 Work out the value of *m.* | *P* = 4*k* – 10*P* = 50Work out the value of *k.* | *b = 80 –* 3a b = 44 Work out the value of *a.* | *D* = *ut* + *t*2*D* = 40*t* = 5Work out the value of *u*. |
| Find the value of *t*2when *t* = -3 | *P =* 2*x2 +* 3Find the value of *P* when *x* = –5 | *Y* = *x2*  – 5*x*Find the value of Ywhen *x* = – 4 | *P* = *Q2*  - 2*Q*Find the value of *P* when *Q* = -3 |

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|  | **EASY** | **MEDIUM** | **CHALLENGE** |
| Problems | You can use this rule to work out the distance a car travels.

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| distance = average speed × time |

A car has an average speed of 60 km/h.It travels for a time of 4 hours.Use the rule to work out the distance the car travels. | Josh uses this rule to work out his pay.

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| Pay =Number of hours worked× rate of pay per hour |

This week Josh worked 10 hours.His rate of pay per hour was £4.50 Use this rule to work out his pay. | Tanya picks strawberries to earn some money.The formula can be used to work out her pay.

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| Pay = £15 per day + £2 for each full basket |

Tanya worked all day on Monday.She filled 12 baskets with strawberries.Work out Tanya’s pay on Monday. | You can use this formula to work out the cost of printing a number of leaflets.

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| printing cost = price per leaflet × number of leaflets+ fixed charge |

The price per leaflet is £0.32The number of leaflets is 1400The fixed charge is £65.50 Work out the printing cost. |
| Problems | Emma uses the formula *P* = 2*a* + *b*to find the perimeter *P* of this triangle.Find the value of *P* when *a* = 5 and *b* = 3 | You can use this rule to work out the number of minutes it takes to cook a turkey.

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| Multiply the turkey’s weight,in kg, by 40.Then add 30 |

A turkey’s weight is 4.5 kg.Use the rule to work out the number of minutes it will take to cook this turkey. | You can use this rule to work out the cost of a taxi journey.

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| cost of taxi journey = cost per kilometre × number of kilometres |

The cost per kilometre of a taxi journey is 35p. Use the rule to work out the cost of a taxi journey of 9 km.Give your answer in pounds (£). | Tom the plumber charges £35 for each hour he works at a job, plus £50The amount Tom charges, in pounds, can be worked out using this rule.

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|  Multiply the number of hourshe works by 35Add 50 to your answer |

Tom charged a customer £260 for a job.How many hours did Tom work? |