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| **Green** | **Amber** | | **Red** |
| *P* = 3*n*  *n* = 6  Work out the value of *P*. | *v* = 15 – 10*t*  *t* = 4  Work out the value of *v*. | *y* = 5*x* – 3  Find the value of *x* when *y* = 4 | *p* = 5  *r* = 2  Work 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 + 5d  c = 3 d = 2  Work 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*  = –3  Work out the value of *P*. | *C* = 5*p* – 4*q*  *p* = 3 *q* = -4.5  Work out the value of *C*. | *P* = 3(*a* - 4*b*)  *a* = 10 *b* = –2  Work out the value of *P*. |
| *p =* 2  Work 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 - 3b  When b *=* 2 | *S* = ½*at*2  Find 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* = 50  Work out the value of *k.* | *b = 80 –* 3a  b = 44  Work out the value of *a.* | *D* = *ut* + *t*2  *D* = 40  *t* = 5  Work out the value of *u*. |
| Find the value of *t*2  when *t* = -3 | *P =* 2*x2 +* 3  Find the value of *P*  when *x* = –5 | *Y* = *x2*  – 5*x*  Find the value of Y  when *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.   |  | | --- | | 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.   |  | | --- | | 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.   |  | | --- | | 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.   |  | | --- | | printing cost =  price per leaflet  ×  number of leaflets  +  fixed charge |   The price per leaflet is £0.32 The number of leaflets is 1400 The 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.   |  | | --- | | 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.   |  | | --- | | 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 £50  The amount Tom charges, in pounds, can be worked out using this rule.   |  | | --- | | Multiply the number of hours  he works by 35  Add 50 to your answer |   Tom charged a customer £260 for a job.  How many hours did Tom work? |