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| **Linear Equations** | |
| **1.** | Solve for *x:*  3*x* − 4 = 6 − 2*x* |
| **2.** | Solve for *x:*  3(*x* − 5) = 3(2*x* + 6) |
| **3.** | Solve for *x:*  5(3 − 2*x*) = 20 |
| **4.** | Find the value of *x* in  (Use your CAS) |
| **5.** | Solve  (Use your CAS) |
| **6.** | If a number is multiplied by 5 and then divided by 3, the result is −45. Find the number. |
| **7.** | Double the sum of a number and 5 is 22.Find the number. |
| **8.** | The price of coffee rose by 20% and is now $5.40 per jar. Find the cost of the same jar of coffee before the rise in the price. |
| **9.** | If the sum of twice a certain number and 3 is multiplied by 5 and then divided by 7, the result is 10. Find the number. |
| **10.** | Charlie is buying tulip bulbs for his girlfriend Sarah. Red tulip bulbs cost $4.80 each, while yellow tulip bulbs cost $3.20. If 20 bulbs cost $76.80, how many of each type did he buy for Sarah? |
| **11.** | Make *t* the subject of the formula *v* = *u* + *at*. |
| **12.** | If the formula for the conversion of temperature from Celsius (*C*) to Fahrenheit (*F*) is given by , make *C* the subject and hence find *C* when *F* = 59 °F. |
| **13.** | Transpose the formula 6*x* = 2*y* − 3 to make *y* the subject. |
| **14.** | The sum of *n* terms of an arithmetic sequence is given by the formula , where *a* is the first term and *L* is the last term.  Transpose the formula to make *a* the subject, and hence find the first term in a sequence that has *n* = 5, *L* = 7 and *S* = 10.  (Use your CAS) |