1.(1 pt) Find a single solution of y if $y'' = 2$.
$y =$ _____

2.(1 pt) Use the method of undetermined coefficients to find one solution of

$$y'' - 14y' + 46y = (4)\,exp((9) * t)$$

.
$y =$ _____
(It doesn't matter which specific solution you find for this problem.)

3.(1 pt) There is an error in this problem — it has been marked correct for everyone. I'll get a replacement for it ready for the next problem set. Sorry about that.
Take care,
Mike
Use the method of undetermined coefficients to find one solution of
$y'' + 2y' - 7y = (-6t^2 + 9t + 4)\exp(4t)$.
Note that the method finds a specific solution, not the general one. $y =$ _____

4.(1 pt) Use the method of undetermined coefficients to find one solution of
$y'' - 18y' + 161y =$
$80exp(9t)cos(9t) + 96exp(9t)sin(9t) + 2 * exp((2) * t)$.
(It doesn't matter which specific solution you find for this problem.)
$y =$

5.(1 pt) Use the method of undetermined coefficients to find one solution of
$y'' + 2y' + 2y = (10t + 7)\,exp(-t)\,cos(t) + (11t + 25)\,exp(-t)\,sin(t)$
.
(It doesn't matter which specific solution you find for this problem.)
$y =$

6.(1 pt)
Find a particular solution to the differential equation

$$y'' - 3y' - 10y = -200t^3.$$

$y_p =$ _____

7.(1 pt)
Find a particular solution to $y'' + 4y' + 4y = 0.5e^{-2t}$.
$y_p =$ _____

8.(1 pt)
Find a particular solution to the differential equation

$$1y'' - 2y' + 1y = -1t^2 - 2t - 1e^{3t}.$$

$y_p =$ _____

9.(1 pt)
Find a particular solution to $y'' + 7y' + 10y = 20te^{5t}$.
$y_p =$ _____

10.(1 pt)
Find a particular solution to $y'' + 4y = 12\sin(2t)$.
$y_p =$ _____

11.(1 pt) Find the solution of $y'' + 8y' + 15y = 12\,exp((-2)t)$ with $y(0) = 6$ and $y'(0) = 1$.
$y =$

12.(1 pt) Find the solution of

$$y'' = 200\,exp((5)t)$$

with $y(0) = 4$ and $y'(0) = 4$.
$y =$ _____

13.(1 pt) Find the solution of

$$y'' + 3y' = 36\sin(3t) + 54\cos(3t)$$

with $y(0) = 4$ and $y'(0) = 2$.
$y =$ _____

14.(1 pt) Find y as a function of x if

$$x^2y'' + 4xy' - 10y = x^4,$$

$y(1) = -10,\ y'(1) = -10.$
$y =$ _____

15.(1 pt) Find y as a function of x if

$$x^2y'' - 17xy' + 81y = x^5,$$

$y(1) = -3,\ y'(1) = 0.$
$y =$ _____

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