

You have 20 minutes to complete this quiz. No calculators allowed. Please show your work carefully! Good luck!

Perform the operations. Simplify your answer as much as possible.

1.  $(2x-5)^2$

$$4x^2 - 20x + 25$$

2.  $3(y-4) - 2(y+5)$

$$y - 22$$

Factor out the GCF.

3.  $24t^3 - 6t^5 + 9t^7$

$$3t^3(8 - 2t^2 + 3t^4)$$

Factor by grouping.

4.  $6a^3 - a^2 + 18a - 3$

$$(a^2 + 3)(6a - 1)$$

Factor each trinomial, if possible. If it is a prime polynomial, write “prime.”

5.  $x^2 + x - 30$

$(x+6)(x-5)$

6.  $p^2 + 6p + 10$

*prime*

Factor each trinomial, if possible. If it is a prime polynomial, write “prime.”

7.  $5m^2 + 12m + 7$

$(5m+7)(m+1)$

8.  $5y^2 - 18y - 8$

$(5y+2)(y-4)$

Factor the trinomial completely. If possible, factor out a GCF first!

9.  $2t^4 - 10t^3 - 100t^2$

$2t^2(t+5)(t-10)$