Factoring Polynomials Review Worksheet

Name: _____
Date:____/___/_____
Score:_____/_____

Find the prime factorization of each integer.

1.) $42 =$ _____

2.) $267 =$ _____

3.) $-72 =$ _____

4.) $-60 =$ _____

5.) $164 =$ _____

Factor each monomial completely.

6.) $240mn =$ _____

7.) $-64a^3b =$ _____

8.) $44rs^2t^3 =$ _____

9.) $-26xy^2 =$ _____

10.) $-231xy^2z =$ _____

11.) $82xy^2 =$ _____

Find the GCF of each monomial.

12.) $16, 60 =$ _____

13.) $15, 50 =$ _____

14.) $45, 80 =$ _____

15.) $29t^2, 58t =$ _____

16.) $7y^2, 14y^2 =$ _____

17.) $21x^3y, 45axy =$ _____

Factor each polynomial. If the polynomial cannot be factored write prime.

18.) $10a^2 + 40a =$ _____

19.) $15wx - 35wx^2 =$ _____

20.) $15mn^2 + 2mn =$ _____

21.) $16y^2 + 8y =$ _____

22.) $42x^3y + 12xy =$ _____

23.) $x^2 - 9x + 14 =$ _____

24.) $b^2 + 22b + 21 =$ _____

25.) $a^2 - 9a - 36 =$ _____

26.) $x^2 - 5x - 24 =$ _____

27.) $x^2 + 2x - 15 =$ _____

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28.) $y^2+2y-35$ =_____

29.) $k^2-27kj-90j^2$ =_____

30.) $4a^2+4a-63$ =_____

31.) $3x^2-7x-6$ =_____

32.) $4r^2-25r+6$ =_____

33 .) $18v^2+24v+12$ =_____

34.) $8m^2-10m-3$ =_____

35.) x^2-9 =_____

36.) a^2-64 =_____

37.) $4x^2-9y^2$ =_____

38.) $1-9z^2$ =_____

39.) a^2-4b^2 =_____

40.) $169-16t^2$ =_____

41.) $x^2+12x+36$ =_____

42.) a^2+4a+4 =_____

43.) $x^2-10x-100$ =_____

44.) $4n^2-20a+25$ =_____

45.) $x^2+30x+225$ =_____

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Solve each equation. Check your solution

$a(a-9)=0$

$d(d+11)=0$

$(a-1)(a+1)=0$

$10x^2-20x=0$

$8b^2-12b=0$

$32x^2=16x$

$33x^2=-22x$

$15a^2=60a$

a^2 + 3a – 4 = 0

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