



Factoring GCF, Binomials, Trinomials  
18 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. Factor:  
 $64a^3 - 8a$

A  $8a^2(40a^2 - a)$

B  $8a(7a^3 - a)$

C  $8a^2(64a^3 - 8a)$

D  $8a(8a^2 - 1)$

2. Factor  
 $n^2 + 14n + 45$

A  $(n-9)(n-15)$

B  $(n-9)(n+5)$

C  $(n+9)(n-5)$

D  $(n+9)(n+5)$

3. Factor  
 $k^2 - 6k - 16$

A  $(k+2)(k-8)$

B  $(k-4)(k+4)$

C  $(k+8)(k-2)$

D  $(k+2)(k+8)$

4. Factor using the GCF:  $5x^2 + 20x$

A  $x$

B  $5x(x+4)$

C  $5(x^2+4)$

D  $5x$

5. Factor:  
 $x^2 + 5x - 24$

A  $(x+8)(x+3)$

B  $(x+8)(x-3)$

C  $(x-8)(x-3)$

D  $(x-8)(x+3)$

6. Factor:  
 $x^2 + 26x + 25$

A  $(x + 25)(x + 1)$

B  $(x + 5)(x + 5)$

C  $(x - 25)(x - 1)$

D  $(x + 2)(x + 13)$

7. What is the GCF?  $-5x-25$

A 25

B  $-x$

C  $x$

D  $-5$

8. What is the GCF?  $16x+4$

A  $x$

B 8

C 4

D 12

9.  $x^2 + 49$

A  $(x + 7)(x + 7)$

B  $(x - 7)(x - 7)$

C  $(x - 7)(x + 7)$

D Prime

10. Factor:  
 $x^2 - 16$

A  $(x + 4)(x - 4)$

B  $(x + 4)^2$

C  $(x - 4)^2$

D  $(x+4)(x+4)$

11. Factor **completely**:  
 $3x^2 + 18x + 15$   
Hint: Factor GCF first.

A  $(x + 5)(x + 1)$

B Prime

C  $3(x^2 + 6x + 5)$

D  $3(x+5)(x+1)$

12.  $3v^2 - 8v + 5$

A  $(3v + 5)(v + 1)$

B  $(3v - 5)(v + 1)$

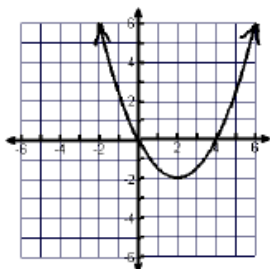
C  $(3v - 5)(v - 1)$

D  $(3v + 5)(v - 1)$

13. Factor the given equation

$$4x^2 - 5x - 6 = 0$$

14.



What are the x- intercepts?

A  $y = 0$

B  $x = 2$

C  $x = 0$  and  $x = -4$

D  $x = 0$  and  $x = 4$

15.  $39y^5 + 12y^4 - 3y^3$

A  $3y(13y^4 + 4y^3 - y^2)$

B  $y^3(39y^2 + 12y - 3)$

C  $3y^3(13y^2 + 4y - 1)$

16. Factor completely:

$$x^3 + 7x^2 - 2x - 14$$

A  $(x^2 - 2)(x - 7)$

B  $(x^2 - 2)(x + 7)$

C  $(x^2 + 2)(x - 7)$

D  $(x^2 + 2)(x + 7)$

17. Factor completely:

$$2x^3 + 5x^2 - 8x - 20$$

A  $(x - 2)(x + 2)(2x + 5)$

B  $(x^2 - 4)(2x + 5)$

C  $(2x - 5)(x^2 + 4)$

D  $(2x^2 - 4)(x + 5)$

18. Factor:  $8x^3 - 1$

A  $(2x - 1)(4x^2 - 2x - 1)$

B  $(2x - 1)(4x^2 + 2x + 1)$

C  $(2x + 1)(4x^2 - 2x + 1)$

D  $(2x + 1)(4x^2 + 2x + 1)$

**Answer Key**

1.d

2.d

3.a

4.b

5.b

6.a

7.d

8.c

9.d

10.a

11.d

12.c

13. $(x-2)(4x+3)$ 

14.d

15.c

16.b

17.a

18.b