

**CHAPTER TEST 5, FORM A**

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|----------------------------------|-------------------------------|------------------------|
| 1. $\frac{1}{81}$                | 10. $12x - 14$                | 19. $2x^2 - 5x - 12$   |
| 2. $\frac{8}{125}$               | 11. $27x^7$                   | 20. $x^9$              |
| 3. $3.459 \times 10^7$           | 12. $-6x^8y^5$                | 21. $\frac{1}{x^{13}}$ |
| 4. 0.00069025                    | 13. $16x^8y^{12}$             | 22. $\frac{x^5}{27y}$  |
| 5. 5                             | 14. $-15x^5 - 25x^4 + 35x^3$  | 23. $6x^3 - 3$         |
| 6. 7                             | 15. $-14x^8y^2 + 21x^6y^7$    | 24. $3x + 2$           |
| 7. 47                            | 16. $15x^2 - 14x - 8$         | 25. $5x^2 + 3x - 1$    |
| 8. $7x^4 + 4x^3 - 4x^2 + 4x - 3$ | 17. $25x^2 - 30x + 9$         |                        |
| 9. $10x^2 - 11x - 1$             | 18. $35x^3 + 18x^2 - 29x + 6$ |                        |
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**CHAPTER TEST 5, FORM B**

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|-----------------------|---------------------------------|------------------------------------|
| 1. $\frac{1}{4}$      | 10. $-x^2 + 7x - 9$             | 19. $6x^2 - 11x - 35$              |
| 2. $\frac{49}{25}$    | 11. $-10x^{12}$                 | 20. $x^6$                          |
| 3. $7.03 \times 10^8$ | 12. $-15x^4y^6$                 | 21. $\frac{1}{x^8}$                |
| 4. 0.0008032          | 13. $16x^{12}y^{20}$            | 22. $\frac{x^{10}y^{11}}{8}$       |
| 5. 5                  | 14. $-18x^6 - 12x^5 + 3x^4$     | 23. $7x^2 - x$                     |
| 6. 10                 | 15. $-16x^{11}y^2 + 4x^{12}y^5$ | 24. $2x - 1$                       |
| 7. -12                | 16. $14x^2 - 29xy - 15y^2$      | 25. $2x^2 - x - 1 + \frac{6}{x+2}$ |
| 8. $-4x^4 - x^2 + 4$  | 17. $4x^2 - 28x + 49$           |                                    |
| 9. $11x^2 - 15x - 3$  | 18. $8x^3 - 2x^2 - 27x + 18$    |                                    |
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**CHAPTER TEST 5, FORM C**

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|-------------------------|------------------------------|---------------------|
| 1. $\frac{1}{125}$      | 10. $5x^2 + 8x - 4$          | 19. $6x^2 + x - 15$ |
| 2. $\frac{49}{16}$      | 11. $-27x^{12}$              | 20. $x^{12}$        |
| 3. $1.5067 \times 10^5$ | 12. $18x^8y^9$               | 21. $\frac{1}{y^6}$ |
| 4. 0.037309             | 13. $-8x^{12}y^{18}$         | 22. $128x^9y^{14}$  |
| 5. 5                    | 14. $-10x^9 - 15x^7 + 20x^6$ | 23. $5x^3 - 3x + 2$ |
| 6. 10                   | 15. $21x^8y^5 - 6x^6y^8$     | 24. $x - 2$         |
| 7. 10                   | 16. $14x^2 - 19x - 3$        | 25. $2x^2 + 3x - 4$ |
| 8. $-2x^5 - 2x^2 - 6$   | 17. $9x^2 - 42x + 49$        |                     |
| 9. $13x^2 - 10x - 2$    | 18. $8x^3 - 27$              |                     |
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**CHAPTER TEST 5, FORM D**

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|---------------------------------|--------------------------------------|---|
| 1. $\frac{1}{27}$               | 10. $-8x^5 + 16x^3 + 5x^2 - 8x + 3$  | 19. $10x^2 - 11x - 6$                           |
| 2. $-\frac{64}{9}$              | 11. $30x^{12}$                       | 20. $2x^6y^2$                                   |
| 3. $6.098 \times 10^8$          | 12. $-6x^8y^9$                       | 21. $\frac{-8y^5}{x^{11}}$                      |
| 4. 0.0007372                    | 13. $-72x^9y^{13}$                   | 22. $\frac{1}{3x^5y^7}$                         |
| 5. 6                            | 14. $10x^8 - 14x^7 + 12x^6 - 8x^5$   | 23. $-8b + \frac{4}{ab^2} - \frac{3}{ab^3} + 6$ |
| 6. 9                            | 15. $-24x^8y^7 + 18x^5y^9$           | 24. $3x^2 + 5x - 4$                             |
| 7. -8                           | 16. $20x^2 + 27xy - 14y^2$           | 25. $x^2 + 4x + 16$                             |
| 8. $-5x^2y + 6xy^2 + 13xy - 3y$ | 17. $49 - 42y + 9y^2$                |   |
| 9. $6x^3 - 10x^2 + 4x - 5$      | 18. $9x^4 - 18x^3 + 26x^2 - 14x + 5$ |   |
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**CHAPTER TEST 5, FORM E**

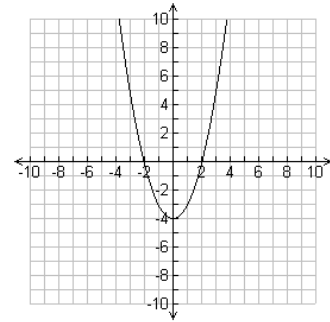
- |      |       |       |
|------|-------|-------|
| 1. b | 10. d | 19. a |
| 2. b | 11. a | 20. a |
| 3. a | 12. c | 21. c |
| 4. c | 13. a | 22. d |
| 5. b | 14. c | 23. c |
| 6. d | 15. c | 24. a |
| 7. c | 16. a | 25. d |
| 8. a | 17. d |       |
| 9. b | 18. d |       |

**CHAPTER TEST 6, FORM A**

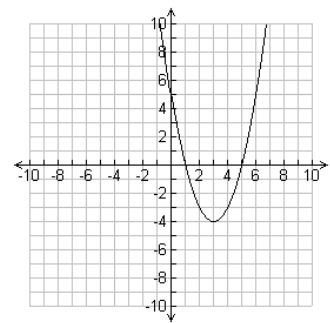
1. 1, 2, 4, 5, 8, 10, 20, 40
2.  $8y^3$
3.  $7(y - 2)$
4.  $8xy^3(x - 2y)$
5.  $(3x + 2y)(6x - y)$
6.  $(x - 9)(x + 5)$
7.  $(x - 5)^2$
8.  $(3x + 5)^2$
9.  $(2x + 5)(x + 4)$
10.  $(4x + 1)(3x - 2)$
11.  $3(5a - 7)(a + 1)$
12.  $4x(2x - 1)(x + 5)$
13.  $(x + 9)(x - 9)$
14. Prime
15.  $4(1 + 2x)(1 - 2x)$
16.  $-2(x + 3)(x - 3)$
17.  $(x - 2)(x^2 + 2x + 4)$
18.  $(4x + 1)(16x^2 - 4x + 1)$
19. 0, 4
20. 3, 10
21.  $-\frac{7}{2}, \frac{4}{3}$
22. 4 feet

23. 6, 15

24.  $y = x^2 - 4$



25.  $f(x) = x^2 - 6x + 5$



**CHAPTER TEST 6, FORM B**

1. 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

2.  $4x^2y$

3.  $3(3y - 14)$

4.  $3x^4y(1 - 4xy^2)$

5.  $(2x - 3)(3x - 2y)$

6.  $(x - 9)(x - 4)$

7.  $(x + 10)(x - 10)$

8.  $(2x - 5)^2$

9.  $(2a - 1)(a - 3)$

10.  $(4x + y)(3x - y)$

11.  $3(x + 2)(x - 7)$

12.  $b(3a - 2)(a - 3)$

13.  $(x + 9)(x - 9)$

14. Prime

15.  $4a(1 + 3a)(1 - 3a)$

16.  $-12(x + 2)(x - 2)$

17.  $(x + 3)(x^2 - 3x + 9)$

18.  $(2x - 5)(4x^2 + 10x + 25)$

19. 0, 5

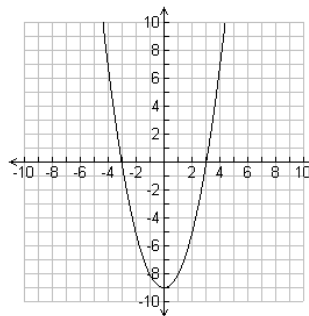
20. -5, 9

21.  $-5, \frac{2}{3}$

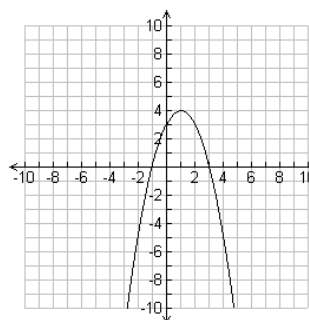
22. 2 feet

23. 24, 26

24.  $y = x^2 - 9$



25.  $f(x) = -x^2 + 2x + 3$

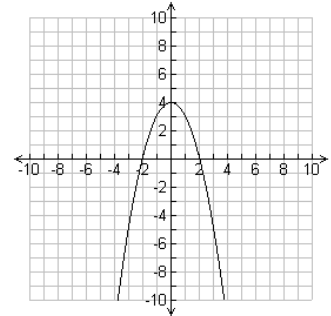


**CHAPTER TEST 6, FORM C**

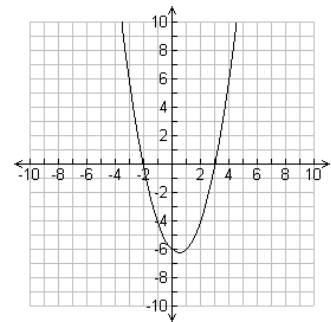
1. 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
2.  $8ab^2$
3.  $14(y^2 - 3)$
4.  $15xy^2(x^2 - 2y)$
5.  $(3x - 1)(x - 2y)$
6.  $(x - 7)(x - 5)$
7.  $(a - 7)^2$
8.  $(2x - 3)^2$
9.  $(2x + 5)(x - 1)$
10.  $(4x - 3)(2x + 3)$
11.  $5(x - 3)(x + 2)$
12.  $2(x + 2y)(x - 7y)$
13. Prime
14.  $(9 + x)(9 - x)$
15.  $3(5 + a)(5 - a)$
16.  $-2(x + 5)(x - 5)$
17.  $(5x + y)(25x^2 - 5xy + y^2)$
18.  $(3x - 2)(9x^2 + 6x + 4)$
19. -5, 3
20. 5, 7
21.  $-7, \frac{2}{3}$
22. 3, 4, 5

23. 7 feet

24.  $y = 4 - x^2$



25.  $f(x) = x^2 - x - 6$



## CHAPTER TEST 6, FORM D

1. 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96

2.  $6x^2y^3z^2$

3.  $-5x^2z^2(2x^2y + 5z)$

4.  $5x^2y^3(3xy - 4 + 10xy^3)$

5.  $(2a + 1)(4a - 7b)$

6.  $ax^2(x - 12)(x - 1)$

7.  $(7x + 6)^2$

8.  $(9x - 4)^2$

9.  $(3a - 1)(2a - 9)$

10.  $(3x - 5y)(3x - 4y)$

11.  $(6x + 7)(2x + 3)$

12.  $y^2(4x - 5)(3x - 1)$

13. Prime

14.  $(x^2 + 9)(x + 3)(x - 3)$

15.  $2a^2(5 + 8a)(5 - 8a)$

16.  $-3x(x + 5y)(x - 5y)$

17.  $y(4x - 1)(16x^2 + 4x + 1)$

18.  $(x^2 + 5)(x^4 - 5x^2 + 25)$

19. -6, 0, 6

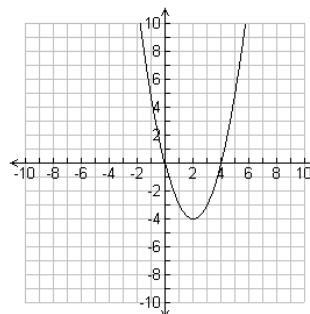
20.  $-\frac{4}{5}, 2$

21.  $-\frac{3}{5}, \frac{6}{5}, 0$

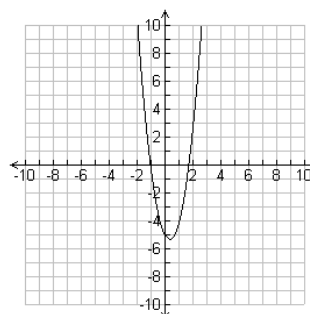
22. -14, -13

23. 12 cm, 16 cm

24.  $y = x^2 - 4x$



25.  $f(x) = 3x^2 - 2x - 5$



**CHAPTER TEST 6, FORM E**

- |      |       |       |
|------|-------|-------|
| 1. d | 10. d | 19. d |
| 2. c | 11. c | 20. a |
| 3. b | 12. d | 21. d |
| 4. b | 13. c | 22. b |
| 5. c | 14. c | 23. c |
| 6. c | 15. b | 24. b |
| 7. b | 16. d | 25. b |
| 8. b | 17. c |       |
| 9. d | 18. d |       |
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## CHAPTER TEST 7, FORM A

1. 4

2. -5, 5

3.  $\frac{-x}{x-7}$

4.  $\frac{1}{x-3}$

5.  $\frac{4y^2}{x^6y^5}; \frac{2x^4}{x^6y^5}$

6.  $\frac{2x(x+5)}{(x-5)^2(x+5)}$ ;

$$\frac{3(x-5)}{(x-5)^2(x+5)}$$

7.  $\frac{3xy}{2m}$

8.  $\frac{16b^3x^2y}{a}$

9.  $-\frac{1}{a}$

10.  $x-5$

11.  $\frac{9x}{3x+5}$

12.  $\frac{1}{a+5}$

13.  $\frac{x^2+2x-2}{x(x+2)(x-2)}$

14.  $\frac{7x+6}{(x-2)(x+3)}$

15.  $\frac{2x-70}{(x+7)(x-5)}$

16.  $\frac{a-8}{4a}$

17.  $\frac{5a+1}{3a-1}$

18.  $\frac{a-8}{3}$

19.  $-\frac{6}{5}$

20. 2, 3

21. 1

22. 6

23. 20 minutes

24. 50 mph

25.  $4 \text{ cm}^3$

**CHAPTER TEST 7, FORM B**

1.  $-6$

2.  $-4, 4$

3.  $\frac{-x}{x-5}$

4.  $\frac{x}{x-3}$

5.  $\frac{3b^2}{a^4b^5}; \frac{6a^2}{a^4b^5}$

6.  $\frac{3x(x+3)}{(x-3)^2(x+3)};$

$$\frac{4(x-3)}{(x-3)^2(x+3)}$$

7.  $\frac{3abm}{2}$

8.  $\frac{8n^3x^2}{my}$

9.  $-\frac{4}{b^3}$

10.  $x-2$

11.  $\frac{10x}{4x+7}$

12.  $\frac{1}{a+4}$

13.  $\frac{2x^2-8x-7}{x(x+7)(x-7)}$

14.  $\frac{8x-8}{(x-6)(x+2)}$

15.  $\frac{-3x+80}{(x-5)(x+8)}$

16.  $\frac{x^2-6}{3x(x+2)}$

17.  $\frac{14a-1}{10a+1}$

18.  $\frac{b-9}{2}$

19.  $3$

20.  $2$

21.  $-1$

22.  $2, 3$

23.  $\frac{12}{5}$  or  $2\frac{2}{5}$  hours

24.  $60$  mph

25.  $6$  amperes

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## CHAPTER TEST 7, FORM C

1.  $-8$

2.  $-3, 3$

3.  $\frac{-y}{y+2}$

4.  $\frac{2x}{x-4}$

5.  $\frac{5xy}{x^5y^3}; \frac{3xy}{x^5y^3}$

6.  $\frac{5y(y+5)}{(y-5)^2(y+5)}$ ;

$$\frac{2(y-5)}{(y-5)^2(y+5)}$$

7.  $\frac{6bx}{y^2}$

8.  $\frac{18b^3x^3}{y}$

9.  $\frac{3}{2b^2}$

10.  $\frac{(2x-1)(x-5)}{5}$

11.  $\frac{2x}{7x+5}$

12.  $\frac{1}{2a+3}$

13.  $\frac{x^2-2x+4}{x(x+4)(x-4)}$

14.  $\frac{7x}{(x-5)(x+2)}$

15.  $\frac{3x-14}{(x-3)(x-4)}$

16.  $\frac{x^2-35}{5x(x+7)}$

17.  $\frac{12x-1}{6x+1}$

18.  $2b-6$

19.  $\frac{5}{3}$

20.  $\frac{5}{4}$

21.  $3$

22. No solution

23.  $\frac{36}{7}$  or  $5\frac{1}{7}$  hours

24. 6 mph

25. 112.7 pounds

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**CHAPTER TEST 7, FORM D**

1.  $-3, \frac{1}{2}$
  2. None
  3.  $\frac{-y}{y-6}$
  4.  $\frac{1}{2(y+1)}$
  5.  $\frac{9x^2}{12x^5y^5}; \frac{10y^3}{12x^5y^5}$
  6.  $\frac{5y(y-6)}{(y+6)(y-1)(y-6)}$ ;  
 $\frac{2(y-1)}{(y+6)(y-1)(y-6)}$
  7.  $\frac{10b^2}{3a^2}$
  8.  $\frac{4}{3a^3b^2}$
  9.  $-3$
  10.  $\frac{y+x}{y-x}$
  11.  $2x-y$
  12.  $\frac{5}{(a+3)(a-3)}$
  13.  $\frac{x^2+2x+5}{(x+1)(x+5)}$
  14.  $\frac{5x+6}{(x-6)(x+6)}$
  15.  $\frac{x^2+2x-10}{5x(x+4)}$
  16.  $\frac{y}{(2y-3)(y+1)}$
  17.  $\frac{2+x}{x-2}$
  18.  $\frac{2}{y(2y-3x)}$
  19. 8
  20. No solution
  21.  $-7, 1$
  22.  $-4, 5$
  23. 12 minutes
  24. 2 mph
  25. \$308
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**CHAPTER 7, FORM E**

- |      |       |       |
|------|-------|-------|
| 1. c | 10. c | 19. a |
| 2. a | 11. d | 20. a |
| 3. b | 12. a | 21. c |
| 4. a | 13. d | 22. c |
| 5. b | 14. a | 23. b |
| 6. a | 15. d | 24. c |
| 7. a | 16. d | 25. b |
| 8. b | 17. a |       |
| 9. b | 18. a |       |
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