

## CHAPTER 5, TEST A

1.  $\frac{21}{28}$

2. (a)  $\frac{7}{5}$  (b)  $-\frac{5}{4}$  (c)  $\frac{16}{55}$  (d)  $-\frac{1}{14}$

3. (a)  $-\frac{22}{81}$  (b)  $\frac{8}{11}$  4. (a) 0.625 (b)  $0.8333\dots$  or  $0.8\bar{3}$

5. (a)  $\frac{7}{11}$  (b)  $\frac{293}{90}$

6. (a)  $5 \times 10 + 6 \times 10^{-2} + 1 \times 10^{-4}$  (b) 4500.205

7.  $5.4 \times 10^{-3}$  8.  $\sqrt{42}$

9. (a) 0.24 (Other answers are possible.)  
(b)  $0.241121231234\dots$  (Other answers are possible.)

10. 12.6 in.

11. (a) Ordinal (b) Cardinal (c) Identification

12. (a) The associative and commutative properties of addition.  
(b) The distributive property of multiplication over addition.  
(c) The associative and commutative properties of multiplication.

13.  $286 = 2 \times 11 \times 13$  14. 41, 43 and 47

15. Composite,  $123 = 3 \times 41$

16. (a) 718 and 1650 (b) 6345, 849, and 1650  
(c) 6345 and 1650

17. GCF = 45;  $\frac{3}{5}$  18. LCM = 1350;  $\frac{11}{1350}$

19.  $\frac{3}{20}$  20. 188,000

21. (a) 10.05 (b) 3.59 (c) 2.184 (d) 3.1

22. 44.7 cm 23. 4220 ft<sup>2</sup> 24. 3.66 in.
25. (a) 0.23 (b) 0.0575 (c) 0.0034
26. (a) 54% (b) 243% (c) 60% (d) 55.6%
27. 40.82% 28. 250
29. (a)  $13\sqrt{2}$  (b)  $\sqrt{73}$  is in simplest form.  
 (c)  $\frac{\sqrt{3}}{3}$  (d)  $\frac{8\sqrt{2}}{7}$
30. (a)  $5\sqrt{3}$  (b) 3  
 (c)  $\sqrt{6}$  (d)  $2\sqrt{3} + 3\sqrt{2}$
31.  $3\sqrt{13}$  in.
32. For  $\sqrt{8}$ , check: **Irrational, Real**  
 For -0.19, check: **Rational, Real**  
 For  $\sqrt{25}$ , check: **Natural, Integers, Rational, Real**  
 For 0.666 . . . , check: **Rational, Real**  
 For  $-2\frac{1}{2}$ , check: **Rational, Real**
33. (a) A geometric sequence (b) An arithmetic sequence
34. (a) 6 (b) 3 (c)  $S_{10} = 195$  (d)  $S_n = \frac{3n(n+3)}{2}$
35. (a) 4 (b)  $-\frac{1}{2}$  (c)  $\frac{11}{4}$  (d)  $\frac{2^n - (-1)^n}{3(2^{n-3})}$
36. (a)  $\frac{8}{9}$  (b)  $\frac{37}{33}$  (c)  $\frac{25}{9}$

## CHAPTER 5, TEST B

1. (d) 2. (a) 3. (e) 4. (e) 5. (d)

6. (c) 7. (c) 8. (d) 9. (b) 10. (b)

11. (d) 12. (e) 13. (c) 14. (b) 15. (c)

16. (b) 17. (c) 18. (b) 19. (b) 20. (e)

21. (b) 22. (b) 23. (b) 24. (e) 25. (d)

26. (c) 27. (e) 28. (d) 29. (c) 30. (c)

31. (c) 32. (b) 33. (d) 34. (c) 35. (b)

36. (a) 37. (c) 38. (b)