

Math Connections



Math Course 1—Week 2 Answers


Variable Expression 4.1.1 - 4.1.3 Answers

Answers


- | | |
|-------------------------------------|--|
| 1. $J + J + J = 3J$ | 2. $J + J + J + J + J + J = 6J$ |
| 3. $J + J + J + J + 5 = 4J + 5$ | 4. $3 + J + J + 2 = 2J + 5$ |
| 5. $J + J + H + H = 2J + 2H$ | 6. $J + H + H + H + J + J = 3J + 3H$ |
| 7. $J + H + H + H + 7 = J + 3H + 7$ | 8. $6 + H + H + H + J + J = 3H + 2J + 6$ |
| 9. $3T + 2M$ | 10. $T + 4M$ |
| 11. $T + M + 2T + M = 3T + 2M$ | 12. $2T + M + 2$ |

Using Variables To Generalize 4.1.1 - 4.1.3 Answers

Answers Note: In each answer, n represents the figure number.


1.  60 dots
 $4 \cdot n = 4n$ dots
 Figure 4

2.  45 dots
 $3 \cdot n = 3n$ dots
 Figure 4

3.  19 dots
 $n + 4$ dots
 Figure 4

4.  240 dots
 $n \cdot (n + 1)$ dots
 Figure 4

The base of each figure is 4 dots, plus the number of dots that matches the figure number.

5.  120 dots
 $\frac{n \cdot (n + 1)}{2}$ dots
 Figure 4

Operation With Fractions 4.1.3 Answers

Answers

1. $8\frac{11}{12}$

2. $13\frac{25}{24} = 14\frac{1}{24}$

3. $9\frac{10}{9} = 10\frac{1}{9}$

4. $4\frac{37}{30} = 5\frac{7}{30}$

5. $9\frac{7}{8}$

6. $8\frac{26}{21} = 9\frac{5}{21}$

Substitution And Evaluation Of Expressions 4.1.3 Answers

Answers

1. 0

2. -5

3. 2

4. -4

5. 11

6. -11

7. -3

8. -56

9. 5

10. -5

11. 34

12. -19

13. 38; 45

14. 20; 41

15. -20; -5

16. -27; -45

17. 64

18. -24

19. -7

20. 36

21. 36

22. -32

Scaling Figures And Scale Factor 4.2.1 - 4.2.3 Answers

Answers

1. $\frac{4}{8} = \frac{1}{2}$

2. $\frac{2}{8} = \frac{1}{4}$

3. $\frac{2}{1}$

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

5. a. 15, 36, 39 b. $\frac{3}{1}$

6. a. 15 cm and 10 cm b. $\frac{1}{4}$

Multiplying Fractions With An Area Model 5.1.1, 5.1.4, 5.2.2 Answers

Answers

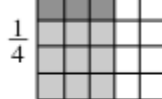
1. $\frac{1}{18}$

$\frac{1}{6}$



2. $\frac{3}{20}$

$\frac{3}{5}$



3. $\frac{10}{27}$

$\frac{5}{9}$



4. $\frac{2}{15}$

5. $\frac{4}{21}$

6. $\frac{3}{20}$

7. $\frac{4}{15}$

8. $\frac{2}{12} = \frac{1}{6}$

9. $\frac{10}{18} = \frac{5}{9}$

10. $\frac{12}{20} = \frac{3}{5}$

11. $\frac{2}{30} = \frac{1}{15}$

12. $\frac{3}{14}$

13. $\frac{12}{40} = \frac{3}{10}$

14. $\frac{6}{45} = \frac{2}{15}$

15. $\frac{15}{70} = \frac{3}{14}$

16. $\frac{30}{77}$

17. $\frac{15}{60} = \frac{1}{4}$

18. $\frac{30}{55} = \frac{6}{11}$

19. $\frac{15}{60} = \frac{1}{4}$

20. $\frac{35}{126} = \frac{5}{18}$

Operation With Decimals 5.2.1 Answers

Answers

- | | | | | | |
|-----|-------|-----|--------|-----|--------|
| 1. | 2 | 2. | 3 | 3. | 3 |
| 4. | 4 | 5. | 3 | 6. | 6 |
| 7. | 0.024 | 8. | 0.96 | 9. | 0.1575 |
| 10. | 14.4 | 11. | 0.0576 | 12. | 49.707 |
| 13. | 43.2 | 14. | 334.6 | 15. | 1.739 |
| 16. | 16.32 | 17. | 0.7125 | 18. | 54.6 |

Area Of polygons 5.3.1 - 5.3.4 Answers

Answers

- | | | | | | | | |
|----|--------------|-----|---------------|-----|---------------|-----|-----------------|
| 1. | 8 sq. miles | 2. | 30 sq. cm | 3. | 21 sq. in. | 4. | 16 sq. m |
| 5. | 11 sq. miles | 6. | 26.1 sq. feet | 7. | 23.8 sq. cm | 8. | 15.95 sq. miles |
| 9. | 64 sq. cm | 10. | 4.84 sq. cm | 11. | 2.25 sq. feet | 12. | 73.96 sq. feet |

Area Of polygons 5.3.1 - 5.3.4 Answers

Answers

- | | | | | | | | |
|----|-------------|----|------------|----|---------------|----|---------------|
| 1. | 48 sq. feet | 2. | 80 sq. cm | 3. | 44 sq. m | 4. | 39 sq. cm |
| 5. | 90 sq. in. | 6. | 168 sq. ft | 7. | 110.74 sq. cm | 8. | 131.88 sq. cm |

Area Of polygons 5.3.1 - 5.3.4 Answers

Answers

- | | | | | | | | |
|----|-------------|----|------------|----|-------------|----|-------------|
| 1. | 24 sq. cm | 2. | 84 sq. ft | 3. | 39 sq. cm | 4. | 68 sq. in. |
| 5. | 17.5 sq. ft | 6. | 3.75 sq. m | 7. | 94.5 sq. cm | 8. | 8.75 sq. ft |