

Answer key for The End of the Year Test, Grade 5

Please see the file for the End of the Year Test for grading instructions.

The Four Operations

1. a. 45 b. 409,344
 2. a. $x = 296,430$ b. $y = 80$ c. $n = 3,304$
 3. The discounted price is \$57.60
 4. a. $42 \times 10 = (10 - 4) \times 70$ b. $143 = 13 \times (5 + 6)$



- b. The ratio of squares to all shapes is **2 : 7**.
 6. There are 38 green marbles.
 7. It would cost \$7.80 to download ten songs.

Large Numbers

8. a. 70,016,090 b. 32,000,232,000
 9. It is about $32,000 \times 300 = 9,600,000$. Other estimates are also possible.
 10.

<i>number</i>	593,204	19,054,947
to the nearest 1,000	593,000	19,055,000
to the nearest 10,000	590,000	19,050,000
to the nearest 100,000	600,000	19,100,000
to the nearest million	1,000,000	19,000,000

Decimals

11. a. 0.289 b. 0.30 c. 0.305 d. 0.313
 12. a. 0.905 b. 0.72 c. 0.629
 13. a. 0.08 b. 0.081 c. 5.21
 14. a. $\frac{48}{1000}$ b. $1 \frac{4}{1000}$ c. $7 \frac{22}{100}$
 15. a. $0.31 > 0.031$ b. $0.43 > 0.093$ c. $1.6 > 1.29$

16.

rounded to...	nearest one	nearest tenth	nearest hundredth
5.098	5	5.1	5.10

rounded to...	nearest one	nearest tenth	nearest hundredth
0.306	0	0.3	0.31

17.

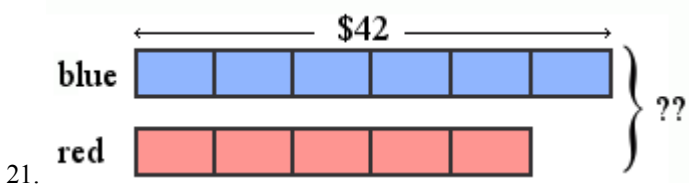
a. $0.4 \times 7 = 2.8$	d. $10 \times 0.005 = 0.05$	g. $0.11 \times 0.3 = 0.033$
b. $0.4 \times 0.7 = 0.28$	e. $100 \times 0.005 = 0.5$	h. $0.7 \times 0.9 = 0.63$
c. $0.4 \times 0.07 = 0.028$	f. $1000 \times 0.005 = 5$	i. $20 \times 0.09 = 1.8$

18.

a. $0.36 \div 6 = 0.06$	c. $3 \div 100 = 0.03$	e. $0.16 \div 10 = 0.016$
b. $0.056 \div 7 = 0.008$	d. $0.7 \div 10 = 0.07$	f. $71 \div 1000 = 0.071$

19. There are 444 milliliters in two bowls.

20. a. Karen paid approximately \$18 and Ann paid approximately \$12.
b. Karen paid \$17.94 and Ann paid \$11.96



The red swimsuit costs \$35. Together they cost \$77.

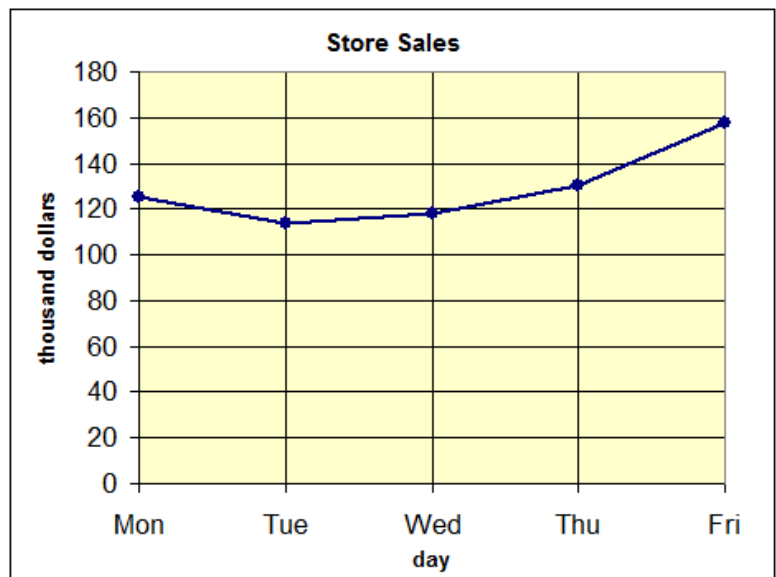
22. a. 1.428 b. 1.344

Graphs

23.

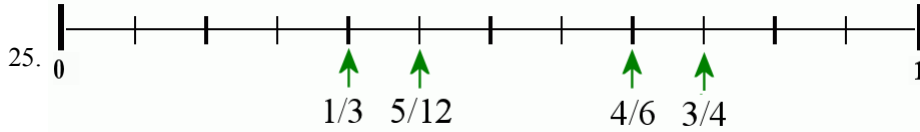
Day	Sales (1000 dollars)
Mon	125
Tue	114
Wed	118
Thu	130
Fri	158

- a. See the line graph on the right.
b. The average daily sales is \$129,000.



Fractions

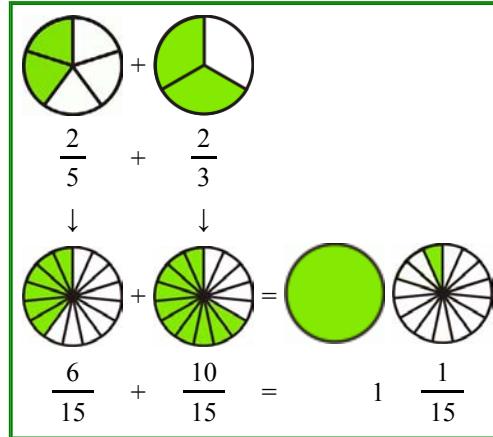
24. a. $6 \frac{3}{9}$ b. $2 \frac{2}{6}$ c. $13 \frac{8}{10}$



26.

a. $\frac{5}{6} = \frac{20}{20}$	b. $\frac{2}{7} = \frac{8}{28}$	c. $\frac{3}{8} = \frac{15}{40}$	d. $\frac{2}{9} = \frac{6}{27}$
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27. Mia finds the common denominator (15) correctly, but forgets that the 2 fifths and the 2 thirds do not stay as 2 fifteenths in the conversion.



28. a. $1 \frac{1}{6}$ b. $\frac{7}{15}$ c. $5 \frac{5}{8}$ d. $10 \frac{5}{18}$

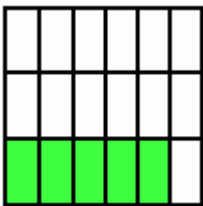
29. You would need $8 \frac{1}{4}$ cups of flour to make three batches of rolls.

30. a. $\frac{6}{9} > \frac{6}{13}$ b. $\frac{6}{13} < \frac{1}{2}$ c. $\frac{5}{10} > \frac{48}{100}$ d. $\frac{1}{4} = \frac{25}{100}$ e. $\frac{5}{7} > \frac{7}{10}$

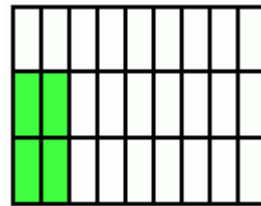
31. a. $1 \frac{2}{5}$ b. cannot be simplified c. $\frac{7}{8}$

32. Yes, it is correct. $\frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$.

33.



a. $\frac{1}{3} \times \frac{5}{6} = \frac{5}{18}$



b. $\frac{2}{9} \times \frac{2}{3} = \frac{4}{27}$

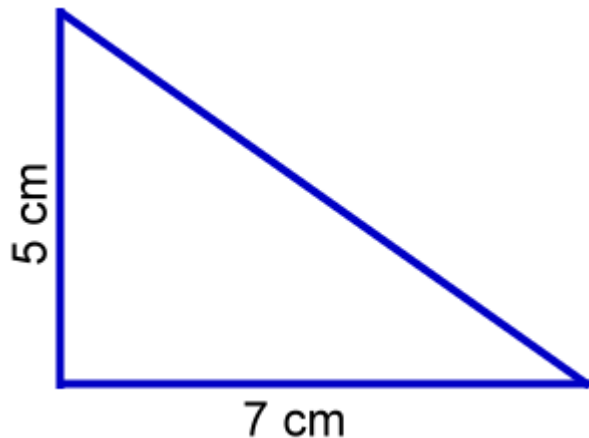
34. You can cut 24 pieces.

35. a. $\frac{63}{6} = 10 \frac{1}{2}$	b. $\frac{10}{21}$	c. $\frac{44}{15} = 2 \frac{14}{15}$	d. $\frac{45}{6} = 7 \frac{1}{2}$
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36. a. $2 : 3$ b. 224 marbles

Geometry

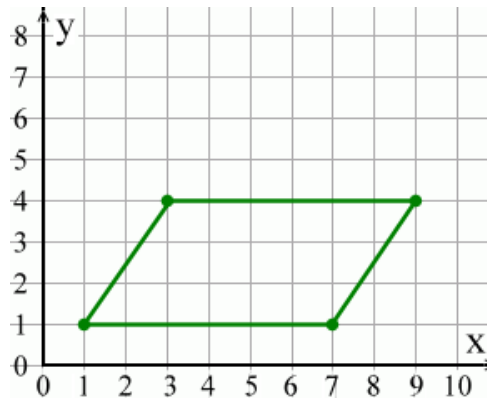
37. The sides measure $2 \frac{15}{16}$ in., $2 \frac{9}{16}$ in., and $4 \frac{15}{16}$ in. The perimeter is $10 \frac{7}{16}$ in.
38. a. an isosceles acute triangle b. a rhombus c. a right scalene triangle d. a trapezoid
39. a. 9 cm^2 b. 20 cm
40. a. The picture in the answer key may be slightly out of scale when printed, due to the possible scaling in the printing process.



- b. $8.6 \text{ cm} + 5 \text{ cm} + 7 \text{ cm} = 20.6 \text{ cm}$ c. 17.5 cm^2 d. They measure 90° , 36° , and 54° .
41. a. 15 square units b. $35 - 4 - 3 - 9 - 1.5 = 17.5$ square units
42. a. 220 cm^2 . The calculation is $2 \times 5 \text{ cm} \times 4 \text{ cm} + 2 \times 5 \text{ cm} \times 10 \text{ cm} + 2 \times 4 \text{ cm} \times 10 \text{ cm}$
 $= 40 \text{ cm}^2 + 100 \text{ cm}^2 + 80 \text{ cm}^2 = 220 \text{ cm}^2$.
- b. $4 \text{ cm} \times 10 \text{ cm} \times 5 \text{ cm} = 200 \text{ cm}^3$.
43. 10.6 cm^2 .
 We will find the areas of the four parts separately.
 1. Rectangle $2.5 \text{ cm} \times 1 \text{ cm} = 2.5 \text{ cm}^2$. 2. Rectangle $1.5 \text{ cm} \times 1 \text{ cm} = 1.5 \text{ cm}^2$.
 3. Triangle $2.4 \text{ cm} \times 2.5 \text{ cm} / 2 = 3 \text{ cm}^2$. 4. Rectangle $1.5 \text{ cm} \times 2.4 \text{ cm} = 3.6 \text{ cm}^2$.
 In total, the area is $2.5 \text{ cm}^2 + 1.5 \text{ cm}^2 + 3 \text{ cm}^2 + 3.6 \text{ cm}^2 = 10.6 \text{ cm}^2$.

44. a. $1.2 \text{ m} \times 0.6 \text{ m} \times 1 \text{ m} = 0.72 \text{ m}^3$.
 b. 240 liters. 0.72 m^3 is 720 liters.

45. a. See the image on the right.
 b. A parallelogram.
 c. 18 square units



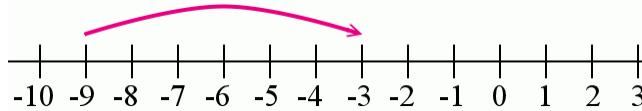
Integers

46. a. $-3 > -6$	b. $2 > -3$	c. $-9 < -5$	d. $-4 < 0$
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47. a. $-5 + (-4) = -9$ b. $-5 + 4 = -1$ c. $-3 + 3 = 0$

48.

a. $-9 + 6 = -3$



b. $-3 + 5 = 2$



49.

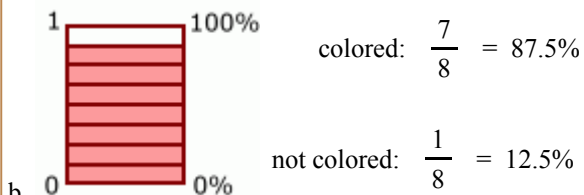
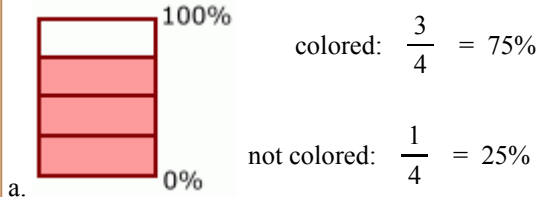
a. $4 + (-7) = -3$	c. $2 + (-9) = -7$	e. $2 + (-8) + (-3) = -9$
b. $(-6) + 6 = 0$	d. $(-7) + (-8) = -15$	f. $(-4) + 2 + 9 = 7$

Percent

50.

a. $2\% = \frac{2}{100} = 0.02$	b. $70\% = \frac{70}{100} = 0.70$	c. $67\% = \frac{67}{100} = 0.67$
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51.



52.

percentage / number	1,100	500	70	31
1% of the number	11	5	0.7	0.31
7% of the number	77	35	4.9	2.17
10% of the number	110	50	7	3.1
40% of the number	440	200	28	12.4