

Seventh-grade Answer Key

Set 1

\$985.00
256 pennies
15
 $56\frac{4}{9}$
214 papers
1727 kilometers
237462.5 square kilometers
20 pigs and 15 chickens
4
8 seconds

Set 2

1
 $\frac{6}{8}$ or $\frac{3}{4}$, 0.75, and 75%

100
\$17.00
 $\frac{1}{8}$
90
45 steps
See number line
See number line, Elise's estimate of 9.3 meters was closest
144 cm, 36 cm

Set 3

$\frac{9}{20}$, 45%, 0.45
\$9.72
22 students
\$5.50
 110°
28 cm
100 square inches
Brother
3 and 97
3

Set 4

Pay scale B
 $1\frac{1}{2}$

4
3 cm and 15 cm
See grid, 0.65, $\frac{17}{20}$
2 packages hotdogs, 3 packages buns
Triangle
Dakota
243 square inches
\$2.70

Set 5

3 pencils to 2 crowns
20 and 8
 $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$
150 hours
 $\frac{30}{31}$
108
 $\frac{5}{8}$
4
12 and 13
6

Set 6

9 cm
3
Answers will vary
98
See grid
13
30 square inches
Answers will vary
 360°
See grid, 0.4, $\frac{2}{5}$

Seventh-grade Answer Key

Set 7

20604
 -387, -279, -225, -129
 1170°
 \$0.49, \$1.20
 112
 \$1.95
 \$33.00
 30
 62
 +\$61.00

Set 8

Yes, they gained 11 yards overall
 Large Lug Tires
 Blue
 \$48.00
 105
 18 ounces
 3.5 cm
 $\frac{2}{15}$
 540°
 \$79.00

Set 9

6 feet 7 inches
 Minimum is 6'1", maximum is 7', median is 6'7.5",
 mode is 6'10"
 100
 36
 18 adults
 Jorge
 62° and 28°
 Ms. Flower
 5.5 hours
 9.991

Set 10

Blue Middle School
 123° , 123° , 57°
 12
 $\frac{3}{4}$
 A
 $\frac{1}{3125}$
 8 pizzas
 About \$12.00
 Answers will vary but about 40%
 18.5 minutes

Set 11

30
 $\frac{1}{10}$
 Tara got 20% off, Rebecca got 15% off
 8 and 9
 12
 Answers vary
 125 cubic cm
 6280 cubic cm
 525 cubic inches
 100 cm

Set 12

6
 B

Ages of President's First Ladies	
2	1
3	1 9
4	4 5 7 8 9 9
5	0 2 4 6 6 6 6 9
6	0 0 3
Key 5	0 means 50 years old

92%
 62 miles per hour
 \$2120.00
 2722.5 miles
 14 ways

Number	2	Number	3	Number	6	total
12	2					24
9	2			1	6	24
6	2			2	6	24
3	2			3	6	24
0	2			4	6	24
		8	3			24
		6	3	1	6	24
		4	3	2	6	24
		2	3	3	6	24
		0	3	4	6	24
3	2	4	3	1	6	24
3	2	6	3			24
6	2	4	3			24
9	2	2	3			24

75%
 40 diagonals

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Set 13

Roxanne bought 2 and Carlos bought 12
\$7.63
76
Answers will vary
10
Answers will vary, commutative and associative properties
600
14
4
25.12 cubic feet

Set 14

85%
 $\frac{5}{12}$
26 meters
\$101.50
5 miles
\$10.50
252 square cm
9
20%
10 and 11

Set 15

125 cm
10%
Answers will vary, about 600
Liter, kiloliter, liter, milliliter
Answers will vary
30
 $\frac{1}{4}$
Less
17.5 cL
1.5 liters

Set 16

8 kilograms
Answers will vary, about 18 inches
About 1625 mL
25 gallons
Square yards
Area is 121.68 square meters, perimeter is 46.8 meters
499.24 seconds
Area is 28026 square cm, Circumference is 18.84 cm
Sam is correct, explanations will vary
Both are correct, explanations will vary

Set 17

The square with 9 at the very center has a mean of 9.
Answers will vary
750 calories
8 busses
 $11\frac{5}{8}$ pounds
Answers will vary
\$32.00
Answers will vary, any three numbers whose product is 48
121
294 square cm

Set 18

$10 + (-5) + (-8) = -3$
 $-10 + 10 + 10 = 10$, Morgan wins
Trapezoid
3 pairs of parallel sides
 71° , 71° , 109°
24 quarters, 6 dimes, 2 nickels and 3 pennies
Borrowed \$8.00
20.00
Answers will vary
Modes 9 and 10.5, median is 3rd 9 from the bottom, the size 14 is an outlier, answers will vary as to average shoe size since mean, median and mode are all averages

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Set 19

16.5 feet
13.2 feet
Answers will vary, exact is 1246.719 to the thousandths place
197.82 square miles
58.2 feet
543.1 square meters
62.7 square meters
\$468,923.08
Model would have to be 290 inches tall, not practical
Still not practical at 145 inches tall

Set 20

4000 cubic feet
29,672 gallons
84.78 cubic feet
113.04 square feet
121
Answers will vary, about 6
630
-6, only negative
Could go up 20 degrees or down 20 degrees
3

Set 21

150.72 square meters
125.6 cubic meters
3.44 square feet
4.6
24 units
Estimates will vary but acute
Acute
\$6.00
\$60
Scalene acute

Set 22

Cylinder with height of 8.5 inches holds more at 26.08 cubic inches compared to 20.15 cubic inches
 90°
70 and 105
38 miles per gallon
12,756,300 meters
354,054,782 kilometers
55
3 angles measure 125° , they are corresponding, vertical, and alternate interior to angle A
 65°
8 cm

Set 23

5, 7, 11
96 square inches
 75°
14 inches
9 and 10
5 square cm
64 square units
5 units
36 and 64
8

Set 24

\$25.00
Answers vary
178.5 square meters
8 kilometers
5 inches
\$12.50
3
135 square feet
5 to 7, 2 to 3, 3 to 10
15.25 square cm

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Set 25

500 km
13 km
No
12 and 16
10, 15, 16, 18, 125, all multiples of 3, 4, 5 work
13 units
17 feet
25 nickels and 5 quarters
 $144 \frac{9}{64}$ feet
75

Set 26

120° it is vertical to angle w
2.5 cm
72 square units
288 tile
58.7 grams
29.35 grams
4.8 calories per gram
7 to 2
250 mg
Answers may vary, between 64 and 67

Set 27

1080°
\$75.60
6 and 9
87.92 square cm
85%
\$.08
70%
 252°
 10% , 36°
5%

Set 28

See diagram
 120°
10 sides
6 square feet, one-fourth of original piece
5 of 8 sections
Negative 13°
(4, 1), (4, 3), (1, 1), (1, 3)
(-1, -1), (-1, -3), (-4, -1), (-4, -3)
S78.5 square feet
13

Set 29

3, 4, 5
(-4, 0), (-4, 4), (-1, 0)
(2, -2), (2, 2), (-1, -2)
6 square units
19.5 hours
6 hours, 1:45 pm
\$277.50
88
Answers will vary, one set is 1, 2, 4, 7, 9, 9, 10
Answers will vary, one set is 1, 2, 3, 6, 8

Set 30

Adding 3 each time, see graph
4 and one-fourth
 $\frac{4}{1}$
28
See graph, non linear
\$200,000
See diagram
\$100
See diagram
 -15°

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Set 31

$\frac{1}{2}$
48 cubic feet
24

Length	1	2	3	4	6	8	12	24
Width	24	12	8	6	4	3	2	1

\$.38, \$.44, \$.30
\$.08, \$.085

$\frac{1}{12}$
1:11 or 1 to 11
Answers will vary
5:35 pm.

Set 32

Answers will vary. Typical response would be something like 4 columns of 2 with one more, or a 2 by 4 rectangle with one square missing

Figure	1	2	3	4	5	6	7	8	9	10
Tile	1	3	5	7	9	11	13	15	17	19

See graph
40th figure, reasoning will vary
60th and 61st figures, reasoning will vary
80%
40 km
Angle 5 corresponds to angle 1, angles 1, 8, and 5 are congruent to angle 4, angle 7 is alternate to angle 2
60°
10

Set 33

$\frac{1}{102}$
1, 7, 21, 35, 35, 21, 7, 1
1, 8, 28, 56, 70, 56, 28, 8, 1
1, 9, 36, 84, 126, 126, 84, 36, 9, 1
There are some awesome lessons related to Pascal's at
<http://mathforum.org/workshops/usi/pascal/index.html>
0, 2, 4, 6, 8, 16, 32, 64, 128, 256, 512
Answers will vary
94%

$\frac{1}{4}$
 $\frac{1}{4}$
5040

Set 33 continued
67,600

$66\frac{2}{3}$ squares should be shaded, which is $\frac{2}{3}$ as a fraction and $\overline{.6}$ as a decimal

Set 34

Answers will vary
H + 7, d - \$25.00, 3q
Triangular prism
\$19.75
121
54 dishes
6 students

$\frac{1}{32}$
2 hours 40 minutes
16

Set 35

$\frac{1}{4}$
Deduction should be taken before sales tax
110, n(n+1)

12 $\frac{1}{2}$ minutes

$\frac{1}{16}$ of an inch

Millimeter
48%
12:13 or 12 to 13
 $\frac{1}{3}$
30 cm

Set 36

$1\frac{3}{4}$ inches
20%
130 square feet
360
4
463, there are many patterns in this arrangement
30
3 hours 25 minutes
Answers will vary, (1, 8), (3, 13), (5, 18)...
4 times as much

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