

Grade 7

Answer Key of Top 100 Word Problems



01	15 cups	26	$x > 6$	51	70 mph	76	220 cm
02	21 mpg	27	$x \geq -2$	52	7.5 cups	77	262 cm^2
03	\$18.00	28	$a \geq 13$	53	150 cm	78	$1,130.4 \text{ cm}^3$
04	13 m	29	$x + 12$	54	\$403.20	79	153.12 cm^2
05	12 m	30	$8x - 12$	55	\$84	80	500 m
06	15 cm; 20 cm	31	12	56	\$259.20	81	60 m^2
07	\$736	32	Yes — both equal $8x + 12$	57	\$180	82	$1/4$
08	\$63.75	33	120 cm^2	58	4.10 kg	83	$3/5$
09	\$298.20	34	44 m	59	-75 m	84	$1/6$
10	\$66.08	35	120 cm^2	60	$-2/3$	85	Even numbers
11	\$54	36	216 cm^2	61	-8°C	86	84.29
12	\$192	37	240 cm^3	62	27	87	24
13	\$180	38	104 m^2	63	8	88	8°C
14	5.56%	39	32 km	64	$17/3$	89	Yes — 5% of the population
15	$-2 \frac{1}{4} \text{ km}$	40	$1/3$	65	1	90	Yes — about 1.18%
16	4.15 cups	41	$3/8$	66	5.5	91	19 students
17	-5°C	42	$1/5$	67	$x < 8$	92	14.17 years
18	$-2/3$	43	Hearts	68	$x > 3$	93	4 hours
19	1°C	44	84	69	$x \geq -3$	94	28
20	27	45	17	70	40 tickets	95	Sample
21	4	46	18	71	$x + 9$	96	85
22	6	47	20%; likely representative	72	$10x - 35$	97	\$580
23	$9 \frac{1}{3}$	48	Population: 2,500; Sample: 150	73	58	98	\$360
24	20	49	2: 3; 3: 2; 4: 2; 5: 2; 6: 1	74	Yes	99	4.17%
25	$x < 8$	50	2 hours	75	126 cm^2	100	\$734.40

Important checks:

#14 = $(4 \div 72) \times 100 = 5.56\%$.

#27 graph shows a closed point at -2 with shading to the right $\rightarrow x \geq -2$.

#45 median of 12, 18, 15, 20, 17 is 17; #46 range of 28, 32, 38, 42, 45, 50 is 22.

#49 frequencies from the listed data: 2 $\rightarrow$ 3, 3 $\rightarrow$ 2, 4 $\rightarrow$ 2, 5 $\rightarrow$ 2, 6 $\rightarrow$ 1; therefore #50 = 2 hours.

#64 gives $3x + 4 - 5 = 16 \rightarrow x = 17/3$; #65 gives $x = 1$.

#79 rectangle area 128 cm^2 plus semicircle area $25.12 \text{ cm}^2 = 153.12 \text{ cm}^2$.

#86 mean = $590 \div 7 = 84.29$ (rounded); #92 mean = $85 \div 6 = 14.17$.