HugeMathBrain — Grade 6 Printable Quiz

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Grade 6

Problem 6.1 · 3 points — A jacket costs $80. Its price is reduced by 25%. What is the new price?



A) $75
B) $65
C) $20
D) $60
E) $55

Problem 6.2 · 3 points — In the morning the temperature was −7 °C. By noon it had risen by 12 degrees. What was the temperature at noon?



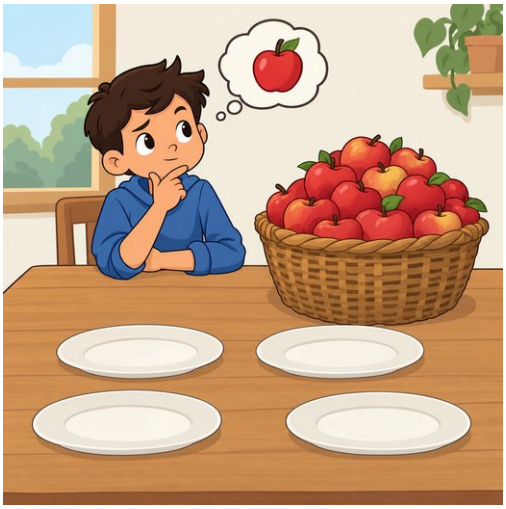
A) −19 °C
B) 19 °C
C) 4 °C
D) 5 °C
E) −5 °C

Problem 6.3 · 3 points — Which fraction is exactly halfway between 1/3 and 1/2?



A) 5/12
B) 4/10
C) 1/4
D) 2/5
E) 3/8

Problem 6.4 · 5 points — How many four-digit perfect squares leave a remainder of 1 when divided by every whole number from 2 through 7?



A) 2
B) 13
C) 8
D) 3
E) 1

Problem 6.5 · 4 points — Lina and Mo have stickers in the ratio 3 : 5. Lina gives Mo 3 stickers, and now Mo has twice as many as Lina. How many stickers did Lina have at first?



A) 27
B) 24
C) 45
D) 72
E) 30

Problem 6.6 · 4 points — The sum of five consecutive whole numbers is 65. What is the LARGEST of the five numbers?



A) 14
B) 15
C) 16
D) 13
E) 17

Problem 6.7 · 4 points — The length of a rectangle is increased by 10% and its width is decreased by 10%. What happens to its area?



A) it grows by 1%
B) it grows by 10%
C) it shrinks by 1%
D) it stays the same
E) it shrinks by 10%

Problem 6.8 · 3 points — Nora’s 3-by-3 tile coaster has exactly five green tiles. Its colors look unchanged after she turns it halfway around (180°); which tile must be green?



A) Middle-left tile
B) Center tile
C) Top-left tile
D) Bottom-right tile
E) Top-middle tile

Problem 6.9 · 5 points — Four islanders are each either a knight (always tells the truth) or a liar (always lies): Ada says, “Exactly one of Ben, Cora, and Drew is a knight”; Ben says, “Ada and Cora are the same kind”; Cora says, “Ben and Drew are different kinds”; and Drew says, “Ada is a liar.” How many of the four are knights?



A) 4 knights

B) It cannot be determined

C) 3 knights

D) 1 knight

E) 2 knights

Problem 6.10 · 4 points — A tinkerer has 5 two-cube rods and 7 single cubes; she may split a rod into two singles or join two singles into a rod. Which total number of separate pieces can she NEVER have?



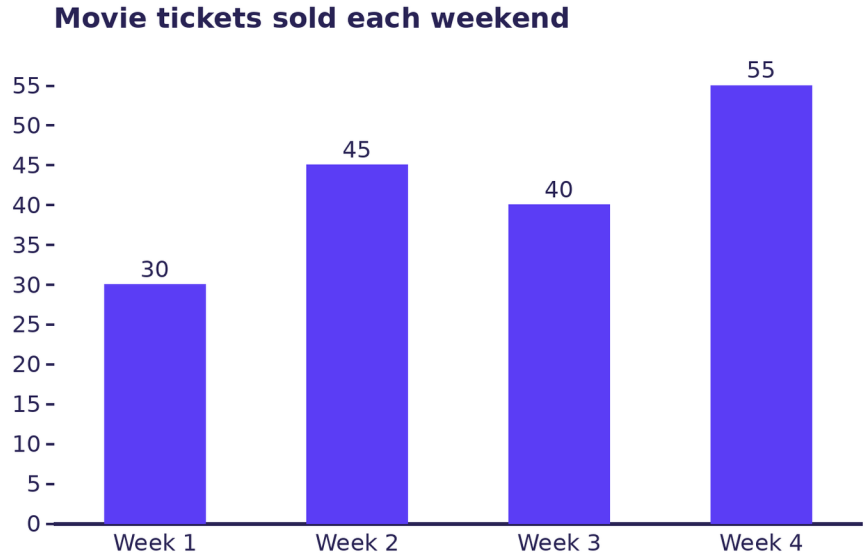
A) 11
B) 8
C) 10
D) 12
E) 9

Problem 6.11 · 4 points — I made an odd four-digit number using 1, 2, 3, and 4 once each. Swapping its thousands and tens digits makes it 1,980 larger; swapping its hundreds and ones digits makes it 198 smaller. What number did I make?



A) 2143
B) 1432
C) 4321
D) 1243
E) 2341

Problem 6.12 · 4 points — If you choose two different weeks from the chart, how many pairs have an average strictly greater than the average for all four weeks?



A) 1
B) 4
C) 2
D) 3
E) 0

Answer key

6.1: D
6.2: D
6.3: A
6.4: A
6.5: A
6.6: B
6.7: C
6.8: B
6.9: E
6.10: B
6.11: E
6.12: C