

Graphs & Data

Data & Measurement · Grade 4

Score: _____ / 10

★ Hard · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

1. A line graph shows plant height over 5 weeks:

Week 1: 3 cm

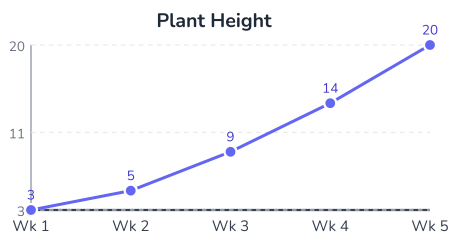
Week 2: 5 cm

Week 3: 9 cm

Week 4: 14 cm

Week 5: 20 cm

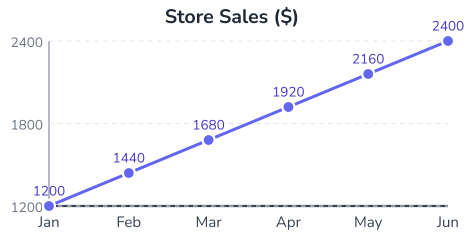
By how much did the plant grow between Week 2 and Week 4?



Answer: _____

2. A line graph shows a store's sales for 6 months.

The line goes steadily upward from \$1,200 in January to \$2,400 in June.
What is the average monthly increase in sales?



Answer: _____

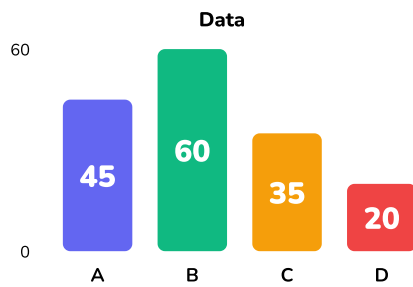
3. Survey of 80 students: Reading=24, Sports=32, Art=16, Music=8.

What fraction chose Sports? (simplest form)

Answer: _____

4. Bar chart: A=45, B=60, C=35, D=20.

What is the average for all four bars?



Answer: _____

5. Pictograph: 1 cup = 4 milk cartons. Mon=5, Tue=3, Wed=7, Thu=4, Fri=6 cups.

How many cartons total?

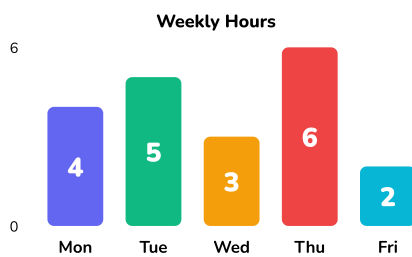


Answer: _____

6. Class data: 40 students. $\frac{1}{4}$ walk, $\frac{3}{8}$ bus, rest ride bikes.
How many ride bikes?

Answer: _____

7. Bar chart of weekly hours: Mon=4, Tue=5, Wed=3, Thu=6, Fri=2.
If each hour earns \$8, what was the total earned?



Answer: _____

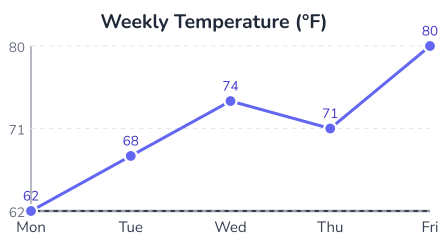
8. Line plot in halves: 2 at 1", 4 at 1½", 3 at 2", 1 at 2½".
What is the total length of all items?



Answer: _____

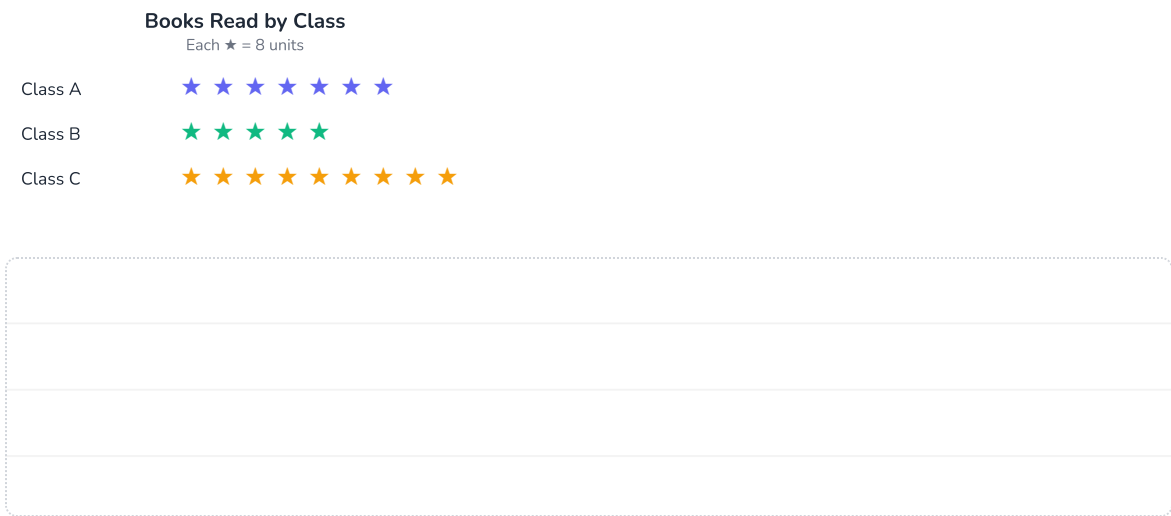
9. Line graph shows weekly temperatures (°F): Mon 62, Tue 68, Wed 74, Thu 71, Fri 80.

What was the difference between the warmest and coolest days?



Answer: _____

10. Pictograph: 1 ★ = 8 books read. Class A: 7 ★, Class B: 5 ★, Class C: 9 ★.
How many MORE books did Class C read than Class B?



Answer: _____

Answer Key

Graphs & Data — Hard

1. 9 cm

Week 4 – Week 2 = $14 - 5 = 9$ cm of growth.

2. \$240 per month

Total increase: $\$2,400 - \$1,200 = \$1,200$ over 5 intervals (Jan→Feb→Mar→Apr→May→Jun).

Average: $\$1,200 \div 5 = \240 per month.

3. 2/5

$32/80 = 4/10 = 2/5$.

4. 40

$(45+60+35+20) \div 4 = 160 \div 4 = 40$.

5. 100 cartons

Total cups = $5+3+7+4+6 = 25$. $25 \times 4 = 100$.

6. 15

Walk: $40 \times 1/4 = 10$. Bus: $40 \times 3/8 = 15$. Bikes: $40 - 10 - 15 = 15$.

7. \$160

Total hours = $4+5+3+6+2 = 20$. $20 \times \$8 = \160 .

8. 16.5 inches

$2 \times 1 + 4 \times 1.5 + 3 \times 2 + 1 \times 2.5 = 2 + 6 + 6 + 2.5 = 16.5$ inches.

9. 18°F

Warmest: Friday 80. Coolest: Monday 62. $80 - 62 = 18$.

10. 32 books

Class C: $9 \times 8 = 72$. Class B: $5 \times 8 = 40$. $72 - 40 = 32$.