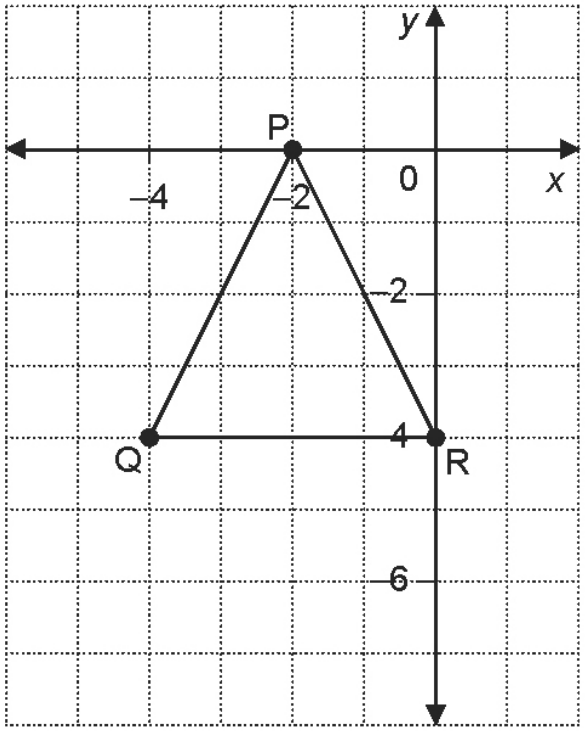
1. What are the signs of the x-coordinate and y-coordinate in quadrant III?

A (–, –)

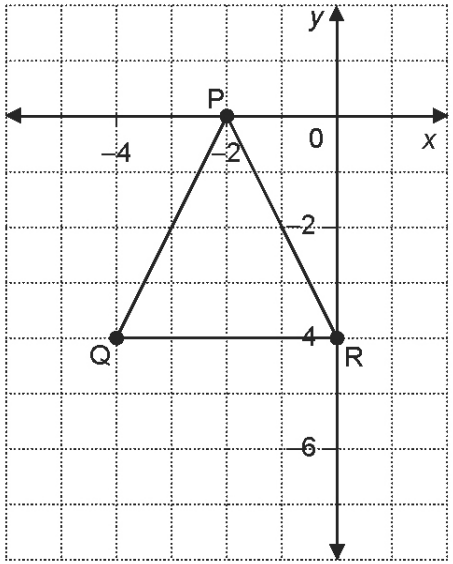
B (–, +)

C (+, +)

D (+, –)



PQR is translated 2 units right and 6 units down to P'Q'R'.



2. What are the coordinates of P'?

A (−8, 2)

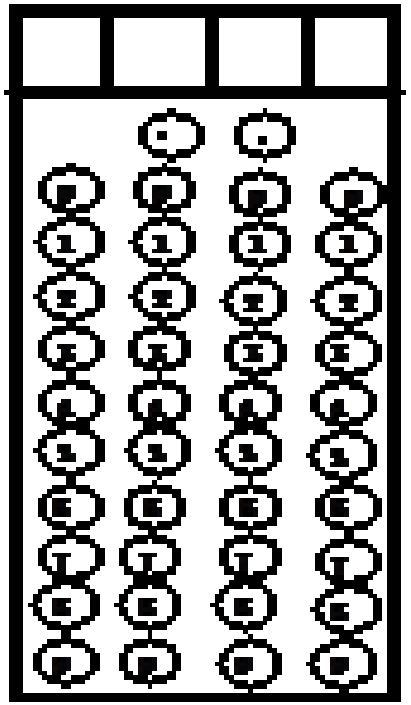
B (−4, −6)

C (−1, −5)

D (0, −6)

Numerical Response

3. Point F(−4, 6) is reflected in the y-axis and then in the x-axis.
In which quadrant does point F” lie?



A bag holds 9 red marbles, 6 blue marbles, and 6 yellow marbles. You reach in and pull out a marble.

4. What is the probability that the marble you choose is blue?

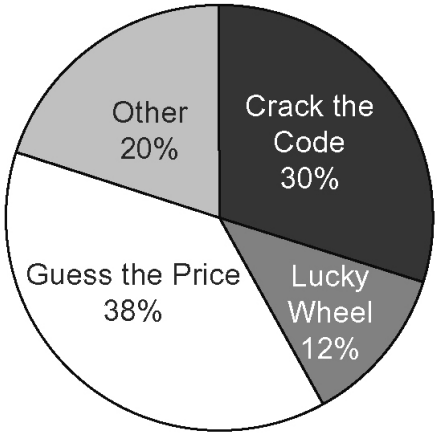
A $\frac{9}{21}$

B $\frac{15}{21}$

C $\frac{3}{7}$

D $\frac{2}{7}$

In a survey, 420 people were asked to identify their favourite TV game show. The results are shown on the circle graph.



5. How many people chose Crack the Code as their favourite game show?

A 294
B 126
C 70
D 30

You won a prize by correctly answering the following skill-testing question:

What is the correct placement of brackets to make the following equation true:

$15 - 6 \times 2 + 4 = 7$?

6. What was your answer to the skill-testing question?

A $(15 - 6) \times (2 + 4) = 7$

B $15 - (6 \times 2) + 4 = 7$

C $(15 - 6) \times 2 + 4 = 7$

D $15 - 6 \times (2 + 4) = 7$

Students at Athletic Academy decided to challenge each other to a soccer shootout to see who could kick the most goals.

Each student had 15 attempts.

Student	Number of Goals
Nyla	3
Daniel	5
Paula	9
Ron	7
Jena	3
Pujub	9
Saki	8
Serge	7
Kaleb	8
Jill	3
Marlys	5
Sven	5

7. What is the median of the data?

A 5
B 6
C 7
D 8

8. What is the range of the data?

A 3
B 4
C 5
D 6

9. What is the mean of the data?

A 5
B 6
C 7
D 8

Four golfers have the following results:

Golfer	Score Under Par
Vince	−12
Dahlia	−5
Renata	−11
Gary	−8

10. The golfer with the lowest score wins the tournament.
The golfer who won is

A Vince

B Dahlia

C Renata

D Gary

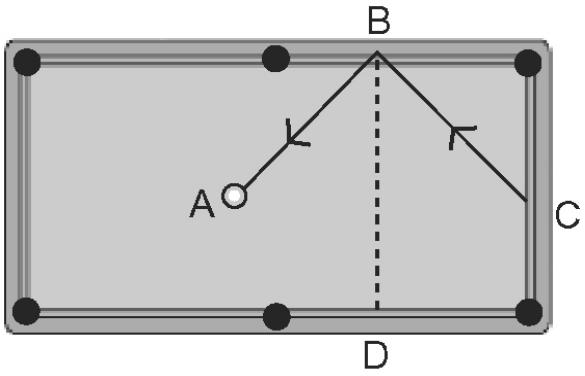
11. The difference between the golfer who came in first place and the golfer who came in last place is

A −7
B −4
C 4
D 7

12. Who came in second place?

A Vince
B Dahlia
C Renata
D Gary

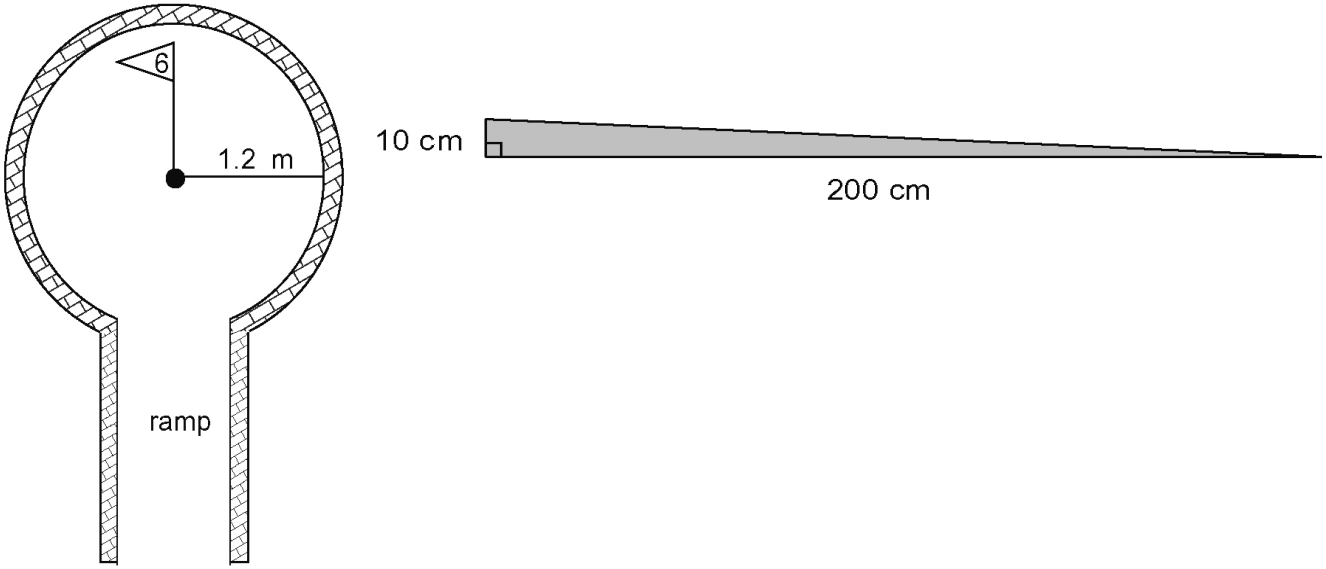
Joseph is playing pool. He makes a shot and the ball bounces off of the side of the pool table at an angle of 72º. This angle is shown on the diagram as ABC.



13. The line segment BD is an angle bisector. What is the measure of ABD?

A 144º
B 72º
C 36º
D 18º

You are building a mini-golf course. Hole 6 begins with a ramp that slopes up to a circular area.



14. Each of the two sides of the ramp form triangles. How much wood will be needed for the two sides?

A 2000 cm²
B 1000 cm²
C 200 cm²
D 100 cm²

15. The inside of the circular area will be covered by green turf. To the nearest tenth of a metre, approximately how much turf will you need?

A 7.5 m^2
B 4.5 m^2
C 3.8 m^2
D 1.2 m^2

16. There are 192 paving stones at Hole 6. The ramp is lined by 88 of them. The number of ramp stones expressed as a fraction of all the stones, in lowest terms is:

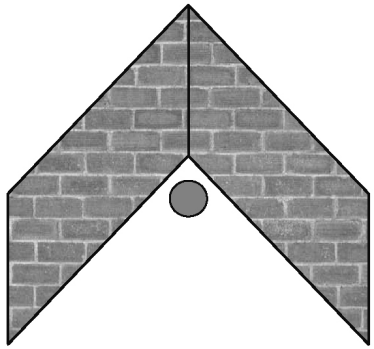
17. To the nearest whole percent, what percent of stones line the circular area?

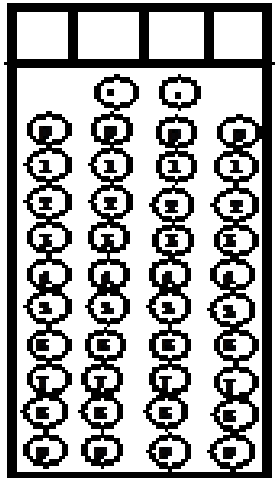
A 23%
B 46%
C 54%
D 84%

18. Alex sinks 40% of his putts in a season. If he had 495 putts over the summer, how many will he miss?

A 40
B 60
C 198
D 297

Two walls form an angle at Hole 5 of the mini-golf course. If you putt straight along the angle bisector of the two walls, you will get the ball in the hole.





19. One angle created by the bisector measures 41º.
What is the measure of the angle between the two walls?

You decide to add a go-cart track beside the mini-golf course. It costs $36 500 to buy nine go-carts.

20. The cost of one cart to the nearest cent is

A $365.00

B $405.56

C $3650.00

D $4055.56

To help maintain the go-cart track,
you need the following materials:

- 2 cans of sealer at $20.99 each
- 14 cans of paint at $10.50 each

21. What is the cost for the materials,
with 5% GST included, to the nearest cent?

A $176.39

B $187.40

C $188.98

D $198.43

Golf balls fit three to a box. Each ball has a mass of approximately 44.8 g. The box that they are packed in has a mass of approximately 15 g.

22. The shipping cartons hold 48 boxes.
What is the mass of 48 boxes of golf balls, to the nearest whole gram?

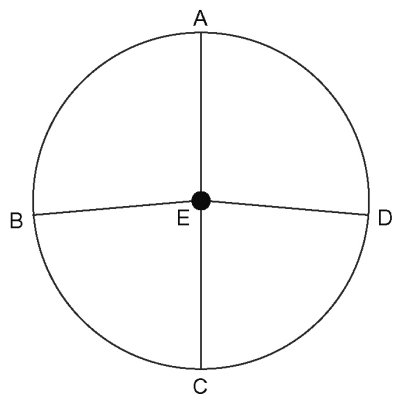
A 720 g

B 6451 g

C 7171 g

D 14 340 g

A game is played in a circle painted on the ground. The diameter AC bisects BED.



23. If the measure of CED = 85º, the measure of BED is:

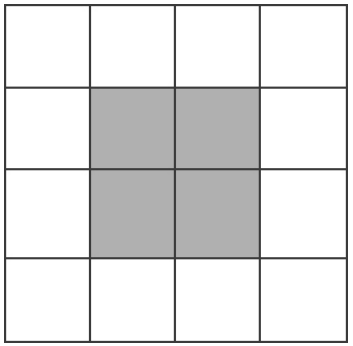
A 170º

B 60º

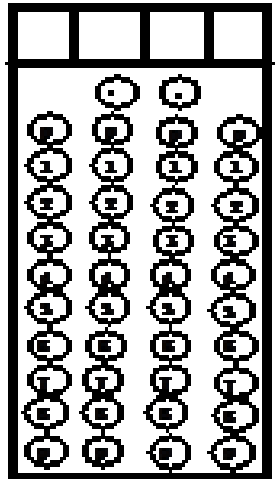
C 95º

D 85º

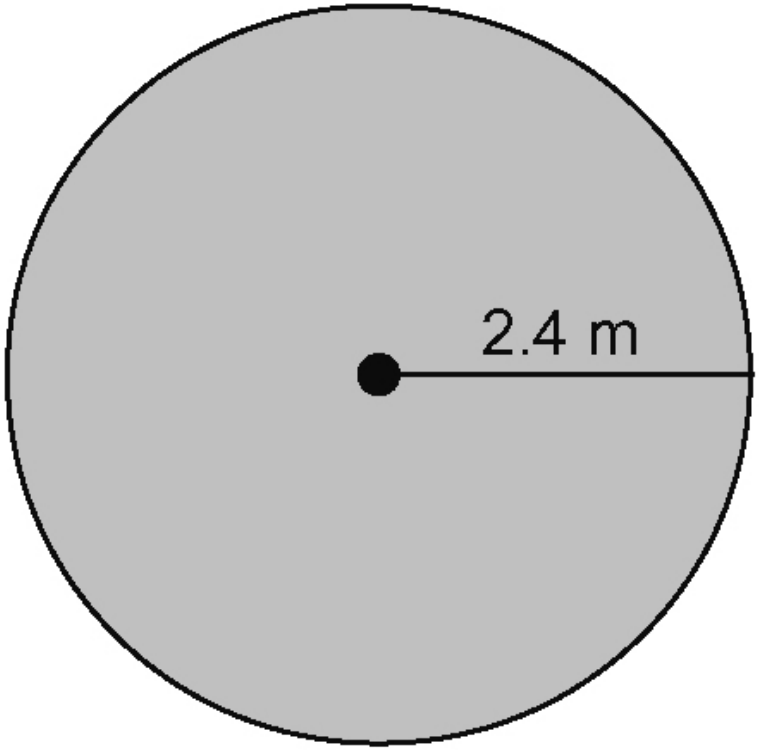
Tiles at the local swimming pool have the following design.



24. What is the ratio of the shaded tiles to the total tiles? Express your answer as a decimal number.



A circular cement pad in the schoolyard is used for tether ball. The circular pad has a radius of 2.4 m.



25. What is the circumference of the circular cement pad to the nearest hundredth of a metre?

A 7.54 m

B 15.07 m

C 22.61 m

D 30.41 m

26. What is the area of the circular cement pad, to the nearest tenth of a square metre?

A 15.1 m^2

B 18.1 m^2

C 36.2 m^2

D 72.4 m^2

27. Mark misses 30% of his shots in a basketball game. If he shoots 20 times in the next game, how many baskets can he expect to make?

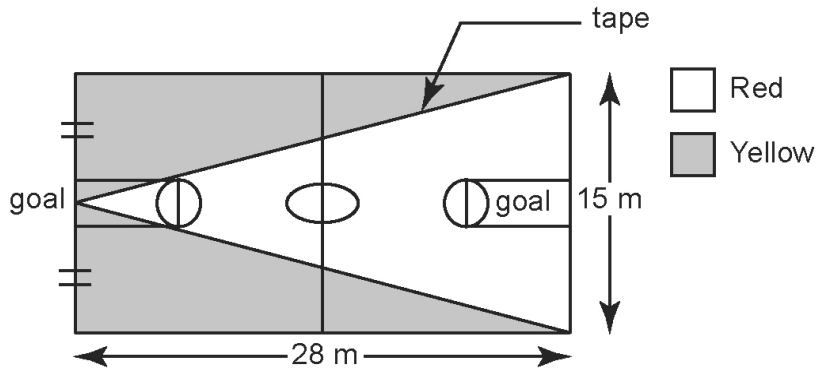
A 2

B 6

C 14

D 20

In a variation of floor hockey, tape placed on the gym floor divides the playing area into triangles. The red team can play only in the large triangle. The yellow team can play only in the two smaller triangles.



28. What is the area of the yellow team's playing area?

A 420 m^2

B 210 m^2

C 120 m^2

D 105 m^2

29. What is the total playing area of the gym floor?

A 420 m^2

B 210 m^2

C 120 m^2

D 105 m^2

30. The ratio that represents the playing area of the yellow team playing area of the red team is:

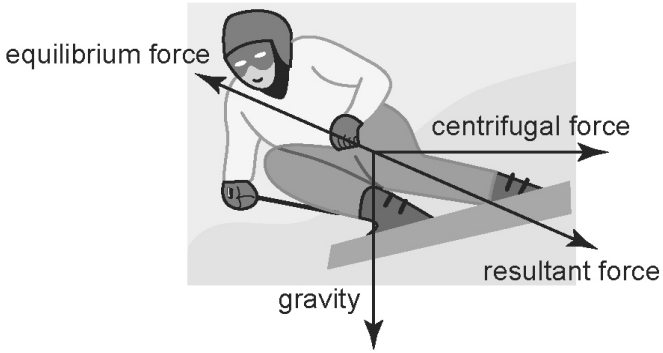
A

B

C

D

Ski racers use different forces to obtain the best position when going around a gate.



31. The forces that create perpendicular lines are

A resultant and equilibrium forces

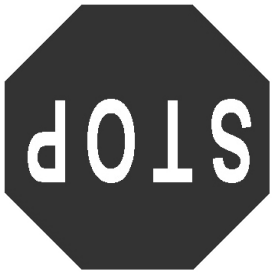
B gravity and equilibrium forces

C gravity and centrifugal forces

D centrifugal and resultant forces

Use this diagram to answer #30.

30. Which stop sign shows a 180° clockwise rotation?

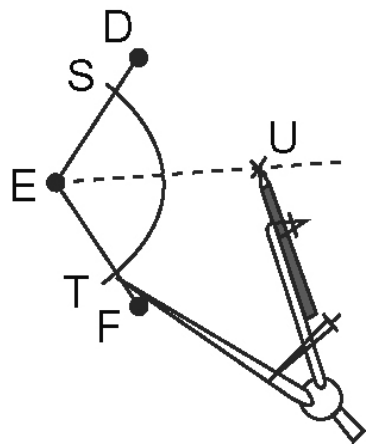
A) 

B) 

C) 

D) 

Use this diagram to answer #31.



31. What is being constructed?

A angle bisector

B congruent line

C parallel line

D perpendicular bisector

32. Which number is the smallest?

A $\frac{1}{3}$

B 0.35

C $\frac{1}{4}$

D 29%

33. What is the greatest common factor of 24 and 32?

A 4

B 8

C 12

D 16

34. Use the divisibility rule for 3 to determine which number is divisible by 3.

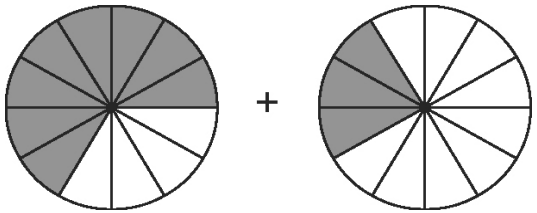
A 468

B 332

C 244

D 142

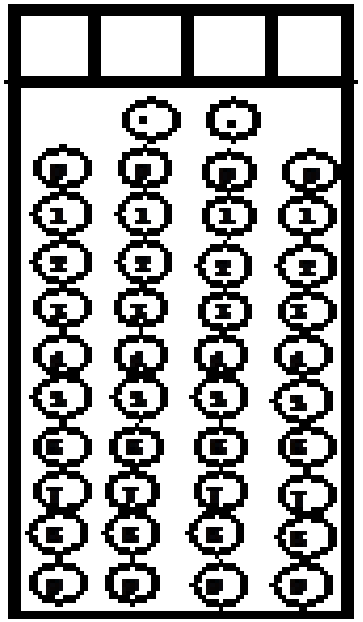
You wrote the addition statement for the diagram shown. Then, you determined the sum.



35. What did you write?
(including the answer)

Numerical Response

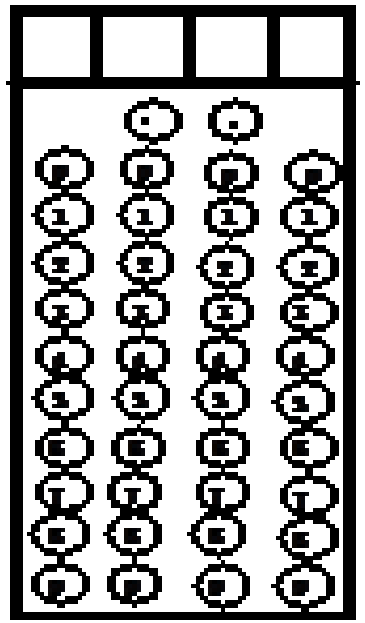
36. What is the value for x in 4x = 84?



37. What is the value of

$$2\frac{3}{5} + 1\frac{1}{4}$$

expressed as a decimal?



Maylynn and Allan decide to put new flooring in their restaurant dining room. The room measures 38.8 m by 19.5 m.

38 Using relative size estimation, what is the best estimate for the area of flooring required?

A 120 m^2

B 800 m^2

C 1600 m^2

D 8000 m^2

The sign shows the daily specials at Flavours Restaurant. George and Sara buy a large bowl of soup, two small vegetarian wraps, and a large salad.

	Small	Large
Soup	$2.25	$3.95
Vegetarian wrap	$3.50	$5.95
Salad	$3.25	$4.95

39. Before tax, what is their total?

A $12.40

B $14.20

C $15.90

D $17.40

Mahmoud bought two shirts for $28 each and one pair of pants for $98. He received a 25% discount on the total cost.

40. What was the amount he paid before taxes?

A $167.50

B $157.50

C $115.50

D $105.50

41. In the relationship $C = 3.50 + 2.25d$, what is the value of 3.50 called?

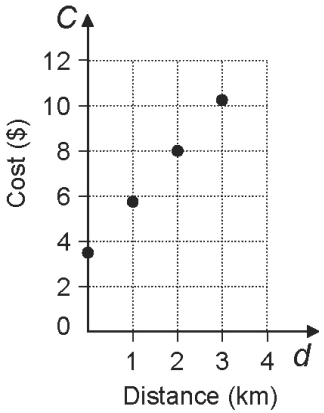
A variable

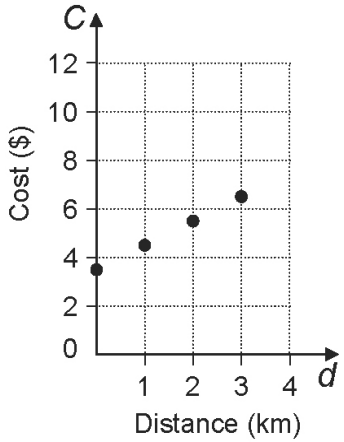
B coefficient

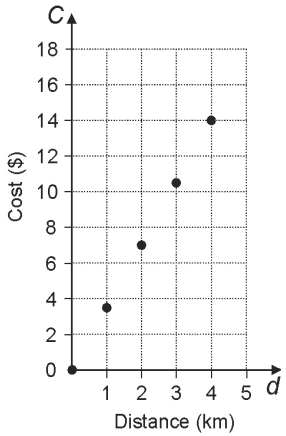
C expression

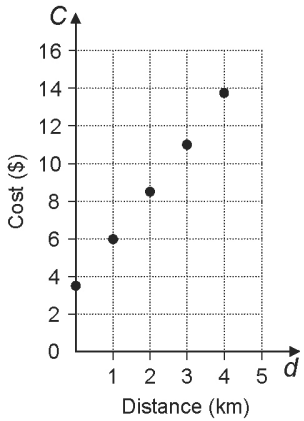
D constant

42. Which graph shows the linear relation C = 3.50 + 2.25d?









43. Jared takes a 42-km taxi ride.
What does it cost?

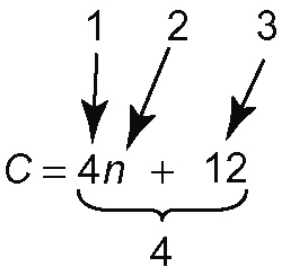
A $82.75

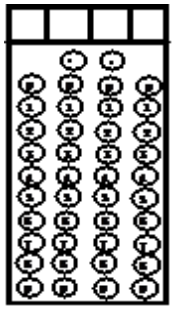
B $98.00

C $105.00

D $108.50

Arleen is holding a tournament banquet at a restaurant. She can calculate the total cost of the food for the banquet using the relationship C = 4n + 12, where C is the total cost, in dollars, and n is the number of people attending. On the diagram, a letter identifies each part of the relationship.





44. Identify each of the following parts by its number:

the variable is ___ ,

the expression is _____,

the coefficient is _____,

and the constant is _____.

To determine the profit per person for the tournament dinner, Arleen can use the relationship $3p + 8 = 29$, where p is the profit, in dollars.

45. The profit per person was

A $6.00

B $7.00

C $12.67

D $17.25