1. [+ Whole Numbers to 10]

	24	15	53	6	18	39	22	10	37	41
+ 5										

2. [− Whole Numbers to 10]

	22	35	14	18	29	7	10	21	6	33
− 2										

3. [× Whole Numbers to 12]

	7	11	3	9	5	8	4	12	10	6
× 10										

4. [÷ Whole Numbers to 12]

	24	9	6	27	21	12	18	30	15	33
÷ 3										

MATH'S MATE

B-U
L BLUE

Term 4 - Sheet 1

Name: ....

Due Date: .... / .... / ....

Parent's Signature:

QUOTE OF THE WEEK
The secret of life is not to do what you like, but to like what you do.
American Proverb

5. [Large Number +,−]

$$83,026 - 7509$$

6. [Large Number ×,÷]

$$\frac{7600}{40} =$$

7. [Decimal +,−]

$$73.04$$
$$2.9$$
$$+ 68.5$$

8. [Decimal ×,÷]

$$12.3$$
$$\times \quad 7$$

9. [Fraction +,−] *

$$\frac{2}{5} - \frac{3}{10} =$$

10. [Fraction ×,÷] *

$$\frac{1}{3} \times \frac{3}{4} =$$

11. [Percents] *

$$1\% \text{ of } 200 =$$

12. [Decimals / Fractions / Percents]

Place in order from smallest to largest:

$$0.68, 0.08, 0.86, 0.806$$

13. [Integers]

Lee owed $200. He deposits $800. How much does Lee have now? $

14. [Rates / Ratios] *

Which is cheaper per pen?
A) $20 for 25 pens
B) $30 for 40 pens

15. [Exponents / Square Roots]

$$\sqrt{1600} =$$

16. [Order of Operations] *

$$(16 - 8) \div (2 + 2) =$$

17. [Exploring Number]

Round 12.48 to the nearest whole number.

18. [Multiples / Factors / Primes]

Express 52 as a product of prime numbers by completing the factor tree.

$$52$$

$$= 2 \cdot \boxed{}$$

$$= \boxed{} \cdot \boxed{} \cdot \boxed{}$$

19. [Number Patterns]

Complete the pattern:

$$2, 5, 11, 20, 32, \underline{\quad}, \underline{\quad}$$

20. [Expressions]

Choose the like terms:
$$3x, y, 2x$$

21. [Substitution] *

If $g = 9$ and $h = 2$, find the value of $g - h - 4$

22. [Equations] *
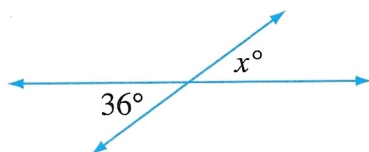
$$3 + 6 \times \boxed{} = 15$$

23. [Graphs & Functions]

This graph shows the distance from home at any time during Grace's walk. How far had Grace walked after 10 minutes?
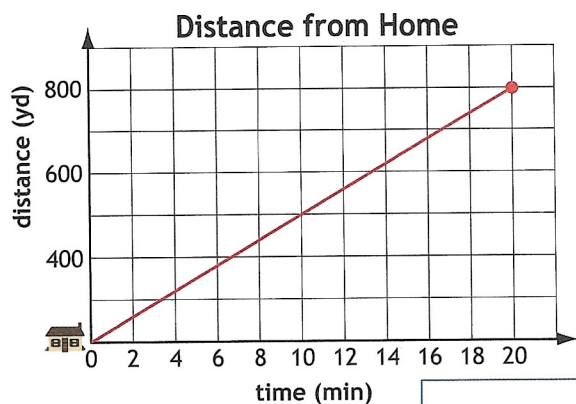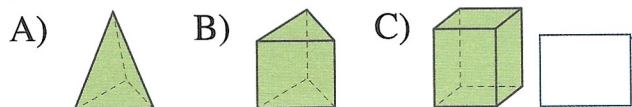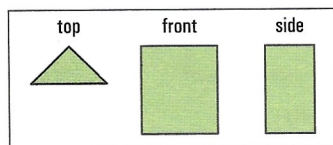
Distance from Home

yd ☐

24. [Shapes]

Find the value of $x°$.

$x°$

$36°$

☐

25. [Exploring Geometry]

Which solid has these top, front and side views?

top	front	side

A) △   B) ◁   C) ▱

☐

26. [Units of Measurement / Time] *

4 hours = ☐ minutes

27. [Perimeter] *

Calculate the perimeter of this shape.

18 mm

12 mm

24 mm

6 mm

mm ☐
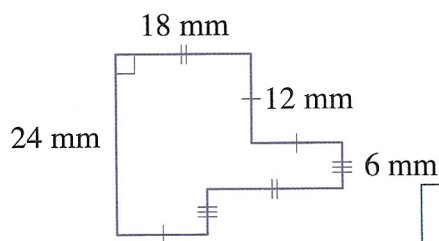
28. [Area / Volume] *

Using $V = l^3$ find the volume of the cube.

$l = 20$ mm
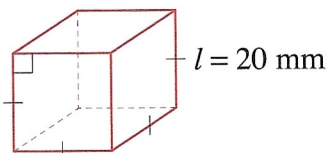
mm^3 ☐

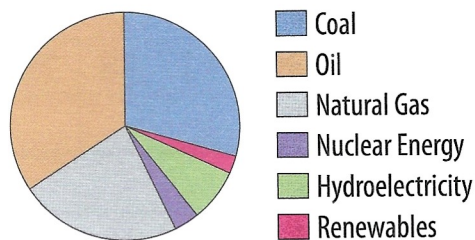**29.** [Statistics]

Which type of primary energy is the fourth largest in the world supply?

Total World Primary Energy Supply (2018)

- Coal
- Oil
- Natural Gas
- Nuclear Energy
- Hydroelectricity
- Renewables

☐

30. [Probability] *

'A yellow marble will be drawn from a bag containing 2 black marbles and 6 yellow marbles.'

Which letter A to E best represents the probability of the event?

Impossible — Unlikely — Equally likely — Likely — Certain
0   0.25   0.5   0.75   1
A   B   C   D   E

☐
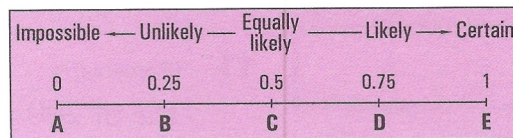
31. [Problem Solving 1]

Complete the multiplication table.

×	3		2	
9		45		54
			4	
4				
	21			

32. [Problem Solving 2] *

What is the least number of different colors needed to paint a cube so that no adjacent faces have the same color?

☐

33. [Problem Solving 3]

Use the digits 1, 3, 5 and 7 once each, to make two 2-digit numbers. What is the smallest possible product these two numbers can produce?

☐☐
× ☐☐

☐

| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |

1. [+ Whole Numbers to 10]

	45	32	14	18	9	26	37	13	20	11
+ 3										

2. [− Whole Numbers to 10]

	8	19	42	35	14	27	31	40	16	33
− 6										

3. [× Whole Numbers to 12]

	10	5	1	8	3	7	2	9	4	6
× 7										

4. [÷ Whole Numbers to 12]

	90	27	63	45	72	36	81	18	54	9
÷ 9										

5. [Large Number +,−]

$$59{,}000 - 2007$$

6. [Large Number ×,÷]

$$\frac{54{,}000}{200} =$$

7. [Decimal +,−]

$$43.8 \quad 6.57 \quad + 20.59$$

8. [Decimal ×,÷]

$$14.08 \times 4$$

9. [Fraction +,−] *

$$\frac{1}{8} + \frac{3}{4} =$$

10. [Fraction ×,÷] *

$$\frac{1}{4} \times \frac{4}{5} =$$

11. [Percents] *

$$33\frac{1}{3}\% \text{ of } 90 =$$

12. [Decimals / Fractions / Percents]

Place in order from largest to smallest:

0.035, 0.53, 0.05, 0.305

13. [Integers] *

A bear weighs 210 lb. During hibernation it loses 42 lb. During spring it gains 30 lb. What does the bear weigh now? ___ lb

14. [Rates / Ratios] *

Which is cheaper per call?
A) $6 for 15 calls
B) $5 for 10 calls

15. [Exponents / Square Roots]
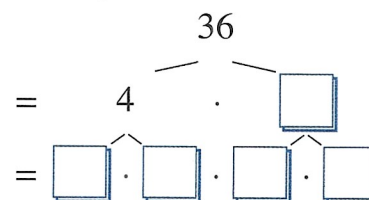
$$\sqrt{3600} =$$

16. [Order of Operations] *

$$50 - (2 + 3 \times 2) =$$

17. [Exploring Number]

Round 14.13 to the nearest whole number.

18. [Multiples / Factors / Primes]

Express 36 as a product of prime numbers by completing the factor tree.

36

= 4 . ☐

= ☐ . ☐ . ☐ . ☐

19. [Number Patterns]

Complete the pattern:

20, 18, 15, 13, 10, ___ , ___

20. [Expressions]

Choose the like terms:
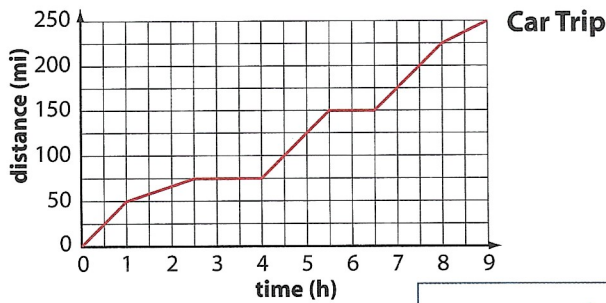
$3h$, i, $4i$

21. [Substitution] *

If $p = 3$ and $q = 10$, find the value of $17 + p - q$

22. [Equations] *
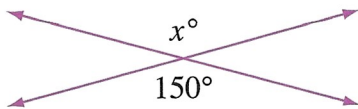
$$4 + 8 \times \boxed{} = 28$$

23. [Graphs & Functions]

This graph shows the distance traveled by a car over a 9-hour period. How long does the car take to travel 200 miles?
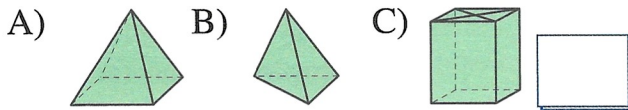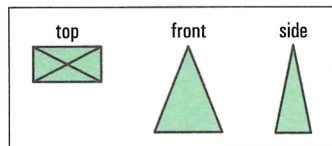
distance (mi) vs time (h) — Car Trip

$\boxed{}$ h

24. [Shapes]

Find the value of $x°$.

$x°$

$150°$

$\boxed{}$

25. [Exploring Geometry]

Which solid has these top, front and side views?

top   front   side

A)   B)   C)

$\boxed{}$

26. [Units of Measurement / Time] *

15 minutes = $\boxed{}$ seconds

27. [Perimeter] *

Calculate the perimeter of this shape.

54 mm

5 mm

18 mm

$\boxed{}$ mm
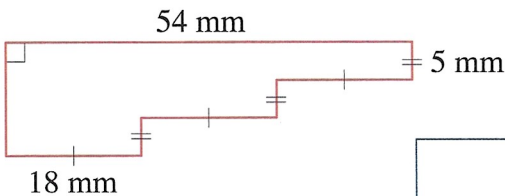
28. [Area / Volume] *

Using $V = l^2 h$ find the volume of the square prism.

$h = 4$ cm

$l = 2$ cm
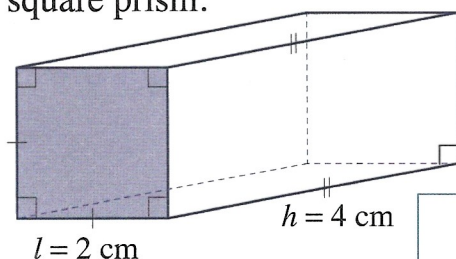
$\boxed{}$ cm^3

29. [Statistics]

Which religion makes up nearly 25% or one quarter of the U.S. population?

Religions - USA

- Protestant
- Roman Catholic
- Mormon
- Jewish
- Muslim
- None
- Other

$\boxed{}$
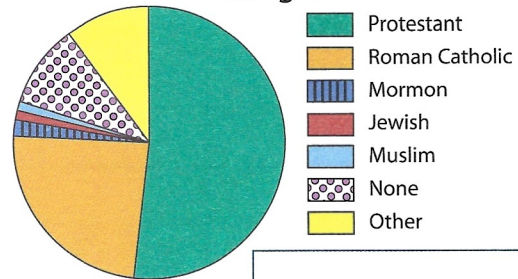
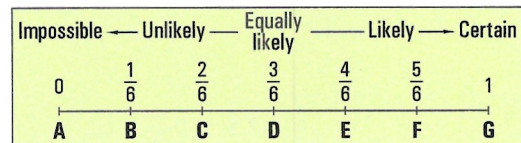**30.** [Probability] *

'A standard die is rolled and an even number comes up.'

Which letter A to G best represents the probability of the event?

Impossible ← Unlikely	Equally likely	Likely → Certain
0 $\frac{1}{6}$ $\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$ $\frac{5}{6}$ 1
A B C	D	E F G

$\boxed{}$

31. [Problem Solving 1] *

In a flock of black and white sheep, 2 out of 5 sheep are white. If there are 8 more black sheep than white sheep, how many sheep are in the flock?

$\boxed{}$

32. [Problem Solving 2] *

Each of my daughters has as many brothers as sisters, but each of my sons has three times as many sisters as brothers. How many children do I have?

$\boxed{}$

33. [Problem Solving 3] *

Happy Numbers
- Add the squares of the digits of a whole number to produce a new number.
- If you repeat this process and end up with the number 1, you have found a happy number. (e.g. *32 is a happy number*)

$32 \rightarrow 9 + 4 = 13 \rightarrow 1 + 9 = 10 \rightarrow 1 + 0 = 1$

Find the first two happy numbers greater than 40.

$\boxed{}$

1. [+ Whole Numbers to 10]

+9	21	34	30	17	9	15	26	23	32	28

2. [– Whole Numbers to 10]

– 10	23	30	45	18	39	42	16	27	21	14

3. [× Whole Numbers to 12]

× 12	6	4	7	3	9	10	12	11	5	8

4. [÷ Whole Numbers to 12]

÷ 4	48	12	28	20	24	44	40	16	32	36

MATH'S MATE

B-U-L BLUE

Term 4 - Sheet 3

Name: ....

Due Date: .... / .... / ....

Parent's Signature:

QUOTE OF THE WEEK
Even a mistake may turn out to be the one thing necessary to a worthwhile achievement.
Henry Ford

5. [Large Number +,–]

$$4\,7,2\,8\,1$$
$$-\quad 3\,7\,9\,5$$

6. [Large Number ×,÷]

$$11 \overline{)2\,4\,7\,5}$$

7. [Decimal +,–]

$$2\,5.8$$
$$7.0\,5$$
$$+\,4\,9.4\,6$$

8. [Decimal ×,÷]

$$5.1\,0\,7$$
$$\times \quad\quad 4$$

9. [Fraction +,–] *

$$\frac{2}{3} - \frac{1}{12} =$$

10. [Fraction ×,÷] *

$$\frac{5}{6} \times \frac{2}{3} =$$

11. [Percents] *

$$12.5\% \text{ of } 800 =$$

12. [Decimals / Fractions / Percents] *

Which fraction has greater value?

$$\frac{5}{6} \text{ or } \frac{2}{3}$$

13. [Integers]

Alexander the Great became king in 336 B.C. and died 13 years later. What year did he die?

14. [Rates / Ratios] *

There are 60 calories in 40 g of cream cheese. How many calories in 100 g?   cal

15. [Exponents / Square Roots]

$$\sqrt{4900} =$$
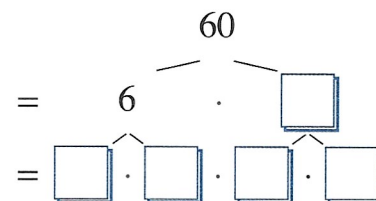
16. [Order of Operations] *

$$(12 + 9 \div 3) \div 5 =$$

17. [Exploring Number]

Round 0.18 to one decimal place.

18. [Multiples / Factors / Primes]

Express 60 as a product of prime numbers by completing the factor tree.

$$60$$
$$= \quad 6 \quad \cdot \quad \square$$
$$= \square \cdot \square \cdot \square \cdot \square$$

19. [Number Patterns]

Complete the pattern:

$$10, 9, 7, 6, 4, \underline{\quad}, \underline{\quad}$$

20. [Expressions]

Choose the like terms:

$$2l, 2, l$$
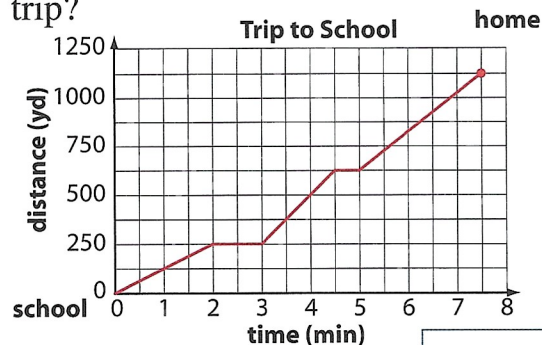
21. [Substitution] *

If $t = -3$ and $u = 8$, find the value of $2t - u$

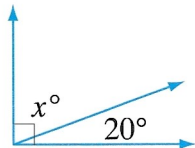**22.** [Equations] *

$$3 \times (7 - \square) = 6$$

23. [Graphs & Functions]

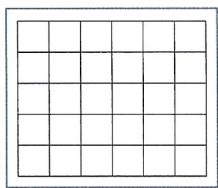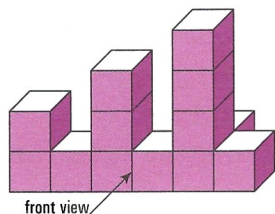If Will cycles to school every day, what is the distance he cycles on his two-way trip?

Trip to School

home

school

yd

24. [Shapes] *

Find the value of $x°$.

$x°$
$20°$

25. [Exploring Geometry]
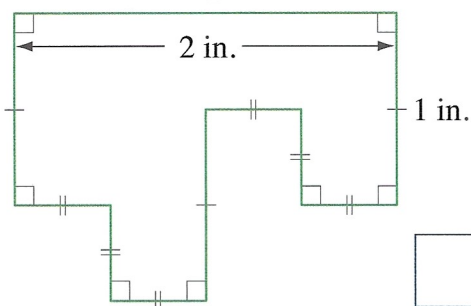
Draw the front view of this solid.

front view

26. [Units of Measurement / Time] *

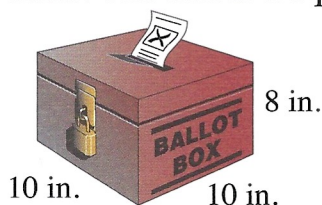$\frac{1}{2}$ day = [____] hours

27. [Perimeter] *

Calculate the perimeter of this shape.

2 in.
1 in.

in.

28. [Area / Volume] *

Using $V = l^2h$ find the volume of the ballot box that is a square prism.

8 in.
10 in.   10 in.

in.^{3}

29. [Statistics] *

Organic matter makes up 5% of the composition of clay loam soils. What percent of the composition is minerals?

Clay Loam Soil Composition

minerals
organic matter
water
air
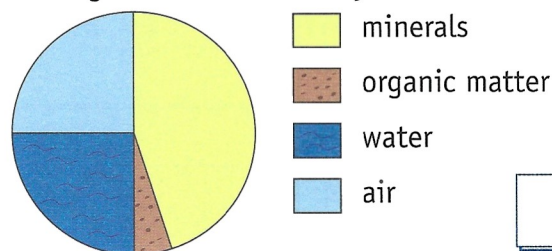
30. [Probability] *

Which event is most likely to happen?
A) drawing a consonant from letters A to Z
B) selecting a multiple of 4 from the digits 0 to 9
C) rolling a 5 on a standard die

31. [Problem Solving 1]

Two different views are shown of a pair of identical dice, each numbered 1 to 6. Which number is opposite the number 3?

[Note: Though identical, the dice are not regular in that opposite sides do not always add to 7.]

32. [Problem Solving 2] *

How many triangles are there in this diagram?

33. [Problem Solving 3] *

Kahi can eat 32 pieces of candy in one hour. Her sister can eat the same amount in 3 hours. How long will it take both of them together to eat 32 candies?

23 | 24 25 | 26 27 28 | 29 30 | 31 32 33

1. [+ Whole Numbers to 10]

	24	5	18	39	42	33	41	27	16	20
+ 4										

2. [− Whole Numbers to 10]

	39	45	12	44	13	16	28	31	10	27
− 8										

3. [× Whole Numbers to 12]

	5	7	3	4	9	10	2	6	11	8
× 6										

4. [÷ Whole Numbers to 12]

	60	50	15	55	35	40	25	30	20	45
÷ 5										

MATH'S MATE

BLUE

Term 4 - Sheet 4

Name: ....

Due Date: .... / .... / ....

Parent's Signature:

QUOTE OF THE WEEK
Never cut what you can untie.
Joseph Joubert

5. [Large Number +,−]

$$48,000 - 316$$

6. [Large Number ×,÷]

$$12\overline{)4\ 2\ 4\ 8}$$

7. [Decimal +,−]

$$\begin{array}{r} 69.4 \\ 80.79 \\ +\ \ 5.61 \\ \hline \end{array}$$

8. [Decimal ×,÷]

$$\begin{array}{r} 2.035 \\ \times\ \ \ \ \ 6 \\ \hline \end{array}$$

9. [Fraction +,−] *

$$\frac{7}{12} + \frac{1}{6} =$$

10. [Fraction ×,÷] *

$$\frac{3}{5} \times \frac{1}{9} =$$

11. [Percents] *

$$66\frac{2}{3}\% \text{ of } 300 =$$

12. [Decimals / Fractions / Percents] *

Which fraction has greater value?

$$\frac{2}{5} \quad \text{or} \quad \frac{1}{2}$$

13. [Integers]

In 44 B.C. Julius Caesar was assassinated. Rome was founded 691 years earlier. In what year was Rome founded?

14. [Rates / Ratios] *

If it takes 15 minutes to travel 25 km, how long will it take to travel 40 km at the same rate?

min

15. [Exponents / Square Roots]
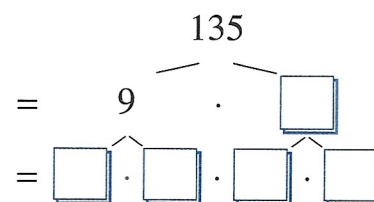
$$\sqrt{10,000} =$$

16. [Order of Operations] *

$$(7 - 3) \times (9 - 2) =$$

17. [Exploring Number]

Round 4.055 to two decimal places.

18. [Multiples / Factors / Primes]

Express 135 as a product of prime numbers by completing the factor tree.

135

= 9 · ☐

= ☐ · ☐ · ☐ · ☐

19. [Number Patterns]

Complete the pattern:

0, 1, 3, 7, 15, ____ , ____

20. [Expressions]

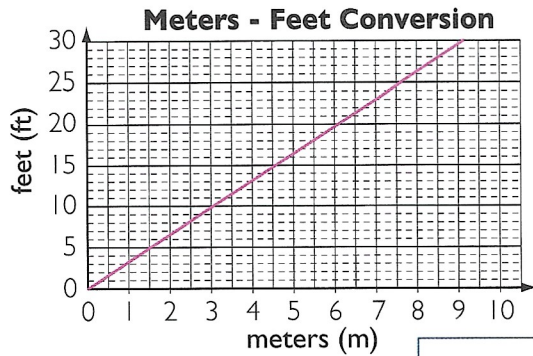Choose the like terms:
$4e, e, 4f$

21. [Substitution] *

If $y = 1$ and $z = 4$, find the value of $2yz + 8$
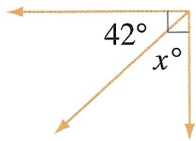
22. [Equations] *

$$2 \times (18 - \boxed{}) = 10$$

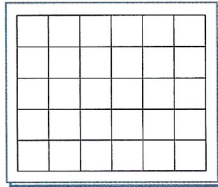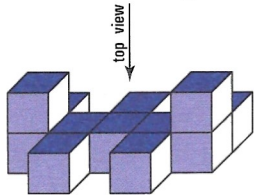**23.** [Graphs & Functions]

How many feet are equivalent to 7 m?

Meters - Feet Conversion

24. [Shapes] *

Find the value of $x°$.

42°

$x°$

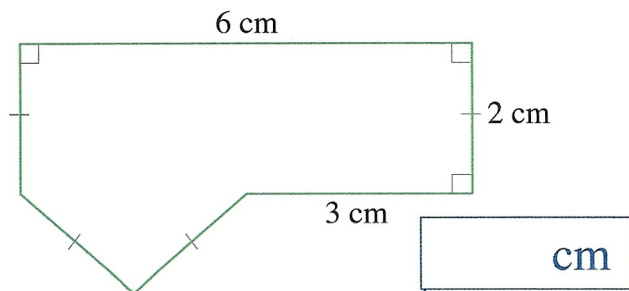**25.** [Exploring Geometry]

Draw the top view of this solid.

top view

26. [Units of Measurement / Time] *
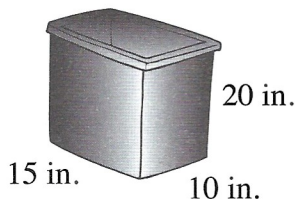
$3\frac{1}{6}$ h = ☐ min

27. [Perimeter] *

Calculate the perimeter of this shape.

6 cm

2 cm

3 cm

cm

28. [Area / Volume] *

Using $V = lwh$ find the volume of the trash can that is a rectangular prism.

20 in.

15 in.   10 in.

in.^{3}

29. [Statistics]

To which country does the USA export less than it imports?

Top 3 USA export destinations & import sources

EXPORT   IMPORT

☐ China
☐ Mexico
☐ Canada
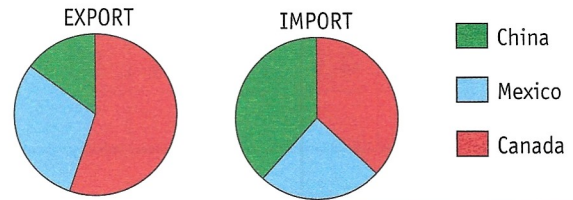
30. [Probability] *

Which has a 50% chance of success?
A) drawing a vowel from letters A to Z
B) selecting an even number from a list of numbers 10 to 19
C) choosing a diamond from a deck of 52 playing cards

31. [Problem Solving 1] *

In a fish bowl there were 12 fish, some little, others big. If each of the big fish ate 2 little fish and then the little fish were all gone, how many fish were left in the bowl?
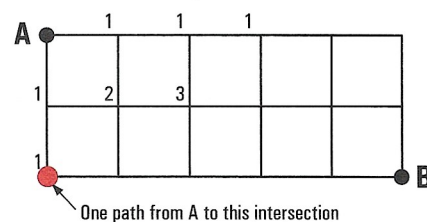
32. [Problem Solving 2] *

A ball is dropped from a height of 32 m. With each bounce, the ball reaches a height that is half the height of the previous bounce. After which bounce will the ball rebound to a maximum height of 25 cm?

32 m
16 m
8 m
Bounce 1   Bounce 2
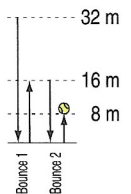
33. [Problem Solving 3] *

You are to go from A to B, always moving right or down along the lines. On how many different paths can you go? [The number of paths from A to various intersections has been included.]

A   1   1   1

1   2   3

1   B

One path from A to this intersection

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1. [+ Whole Numbers to 10]

	55	8	17	16	9	23	14	2	60	21
+ 6										

2. [– Whole Numbers to 10]

	15	82	9	50	21	6	68	77	14	43
– 4										

3. [× Whole Numbers to 12]

	3	12	8	6	11	7	10	9	4	5
× 9										

4. [÷ Whole Numbers to 12]

	66	88	33	110	132	55	44	121	77	99
÷ 11										

5. [Large Number +,–]

$$43,207$$
$$+ \quad 8057$$

6. [Large Number ×,÷]

$$1356$$
$$\times \quad 14$$

7. [Decimal +,–]

$$68.0$$
$$- \quad 0.6$$

8. [Decimal ×,÷]

$$0.6$$
$$\times 0.4$$

9. [Fraction +,–] *

$$\frac{1}{2} - \frac{1}{6} =$$

10. [Fraction ×,÷] *

$$\frac{1}{2} \div \frac{2}{3} =$$

11. [Percents] *

If a $200 pair of shoes is reduced by 15%, what is the discount?

$

12. [Decimals / Fractions / Percents]

Complete the table:

Decimal	Fraction	Percent
0.9		

13. [Integers]

$$2 - 5 =$$

14. [Rates / Ratios] *

The average turtle swims at 12 mph and walks at 3 mph. Find the ratio of swimming to walking rates, in simplest form.

:

15. [Exponents / Square Roots]

$$1^5 =$$

16. [Order of Operations] *

$$5 + 3^2 \times 3 =$$

17. [Exploring Number]

Choose the whole numbers from this list:

$$\frac{3}{5}, 61, -3, 127, 0.75$$

18. [Multiples / Factors / Primes]

List the prime factors of 35.

19. [Number Patterns]

Complete the pattern:

$$-14, -12, -10, -8, \underline{\quad}, \underline{\quad}$$

20. [Expressions]

Simplify $a + a + b$

21. [Substitution] *
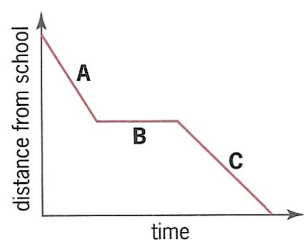
If $h = 7$, find the value of h^2

22. [Equations] *
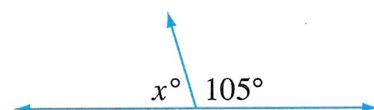
Solve for x:

$$x + 2 = 9$$

$x =$

23. [Graphs & Functions]

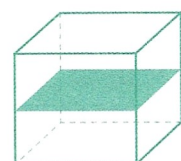This graph shows Claire's journey as she walks from home to school. Where is Claire at the end of section C?

24. [Shapes] *

Find the value of $x°$.

25. [Exploring Geometry]

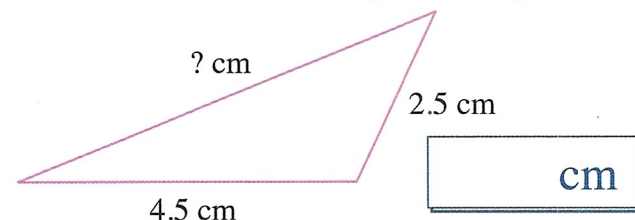What shape is the cross section drawn through this cube?

26. [Units of Measurement / Time] *

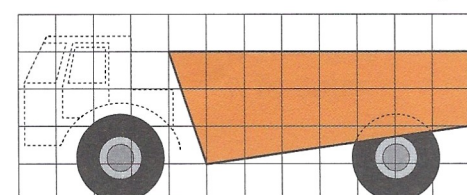Find the time in hours and minutes between 8:00 A.M. and 2:15 P.M. on the same day.

27. [Perimeter] *

The perimeter of the scalene triangle is 13 cm. Find the missing side length.
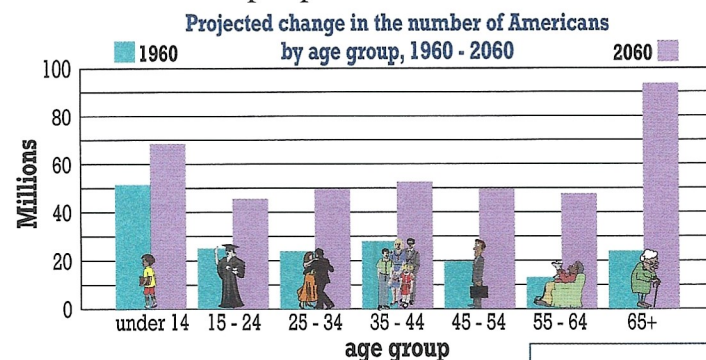

? cm
2.5 cm
4.5 cm

cm

28. [Area / Volume] *

Find the area of the shaded quadrilateral.
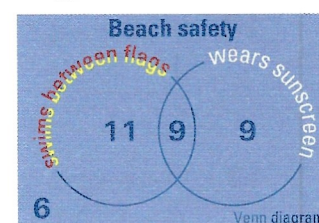

sq. units

29. [Statistics]

Which age group is expected to grow by 30 million people between 1960 and 2060?

30. [Probability] *

What is the probability that a person chosen at random swims between the flags? [Give your answer as a fraction in simplest form.]

31. [Problem Solving 1] *

A number of students are standing in a circle. They are evenly spaced and the fifth student is directly opposite the eleventh student. How many students are there all together?

32. [Problem Solving 2] *

A 2-digit number with 2 different digits has a special property:

"When the sum of its digits is added to the product of its digits, the result is the number itself."

What is the smallest number with this property?

33. [Problem Solving 3] *

Angela had a pair of cats. The female gave birth to six kittens, three male and three female. The next year the four female cats each gave birth to six kittens, again, three male and three female. If, in the next year, each female does the same and no cats die, how many cats will Angela then have?

MATH'S MATE

BLUE

Term 4 - Sheet 6

Name: ....

Due Date: .... / .... / ....

Parent's Signature:

QUOTE OF THE WEEK
It is a good thing to learn caution by the misfortunes of others.
Syrus

1. [+ Whole Numbers to 10]

	20	25	7	74	13	6	62	18	41	89
+ 8										

2. [– Whole Numbers to 10]

	16	21	30	9	15	78	83	12	14	27
– 7										

3. [× Whole Numbers to 12]

	5	4	8	9	6	12	3	7	11	10
× 5										

4. [÷ Whole Numbers to 12]

	60	48	132	84	72	120	96	36	24	108
÷ 12										

5. [Large Number +,–]

$$73,845 + 2956$$

6. [Large Number ×,÷]

$$2308 \times 15$$

7. [Decimal +,–]

$$3.0 - 0.05$$

8. [Decimal ×,÷]

$$0.2 \times 0.5$$

9. [Fraction +,–] *

$$\frac{1}{10} + \frac{2}{5} =$$

10. [Fraction ×,÷] *

$$\frac{1}{8} \div \frac{4}{9} =$$

11. [Percents] *

If a $900 HD LED TV is reduced by 25%, what is the discount?

$

12. [Decimals / Fractions / Percents]

Complete the table:

Decimal	Fraction	Percent
	$\frac{1}{10}$	

13. [Integers]

$$4 - 9 =$$

14. [Rates / Ratios] *

A submarine's surface speed is 12 knots, and its diving speed is 20 knots. Find the ratio of diving to surface speeds.

:

15. [Exponents / Square Roots] *

$$4^3 =$$

16. [Order of Operations] *

$$26 - 6 \times 2^2 =$$

17. [Exploring Number]

Choose the whole numbers from this list:

$$7.43, -\frac{8}{3}, 1, 225, \sqrt{5}$$

18. [Multiples / Factors / Primes]

List the prime factors of 12.

19. [Number Patterns]

Complete the pattern:

$$11, 8, 5, 2, -1, \underline{\quad}, \underline{\quad}$$

20. [Expressions]

Simplify $s + t + s$

21. [Substitution] *

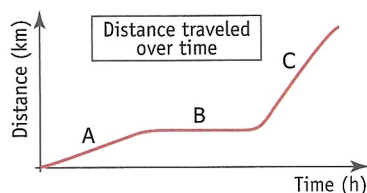If $s = 3$, find the value of $3s^2$

22. [Equations] *

Solve for b:

$$b - 4 = 5$$

$b =$
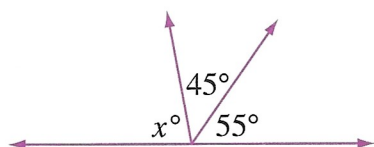
23. [Graphs & Functions]

The graph of a trip is shown below. It is divided into 3 parts. Match each part with its best description.

A) ⟋ Stopped for lunch

B) ⟍ Driving on a dirt road

C) Driving on a freeway

Distance traveled over time

24. [Shapes] *

Find the value of $x°$.

45°

$x°$ 55°

25. [Exploring Geometry]

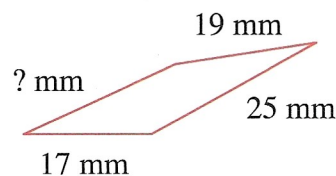What shape is the cross section drawn through this prism?

26. [Units of Measurement / Time] *

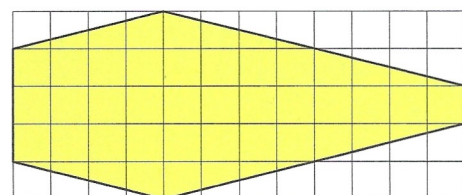Find the time in hours and minutes between 5:30 A.M. and 3:00 P.M. on the same day.

27. [Perimeter] *

The perimeter of the quadrilateral is 83 mm. Find the missing side length.

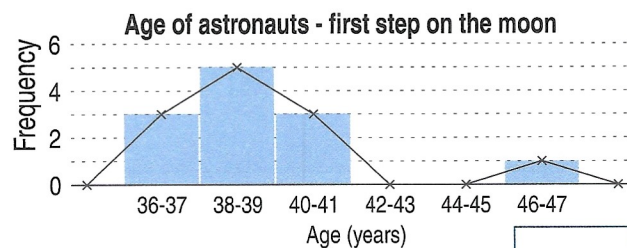19 mm

? mm

25 mm

17 mm

mm

28. [Area / Volume] *

Find the area of the shaded polygon.

sq. units

29. [Statistics]

How many astronauts were less than 40 years old when they first stepped on the moon?

Age of astronauts - first step on the moon

Frequency

6

4

2

0

36-37 38-39 40-41 42-43 44-45 46-47

Age (years)

30. [Probability] *

What is the probability that a person chosen at random enjoys snowboarding?
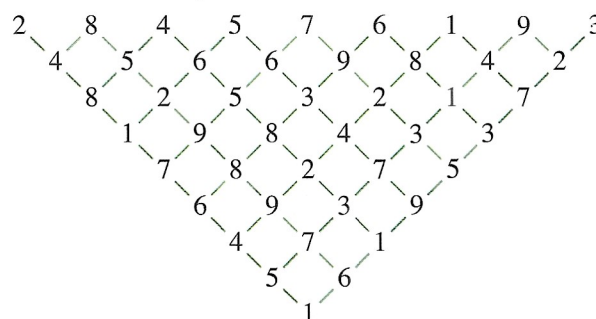
[Give your answer as a fraction in simplest form.]

Winter activities

skiing   snowboarding

33 3 5

7   Venn diagram
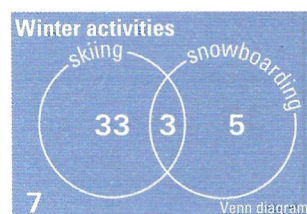
31. [Problem Solving 1] *

How many of the first ten positive whole numbers can be expressed as the sum of two different prime numbers?
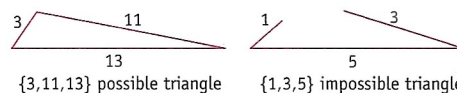
32. [Problem Solving 2]

Starting at the top and finishing at the bottom of this network, trace a path which goes through each number from 1 to 9 once and only once. [The order is not relevant.]

2   8   4   5   7   6   1   9   3

4   5   6   6   9   8   4   2

8   2   5   3   2   1   7

1   9   8   4   3   3

7   8   2   7   5

6   9   3   9

4   7   1

5   6

1

33. [Problem Solving 3] *

Nick has six sticks of the following lengths: 3 cm, 3 cm, 5 cm, 9 cm, 11 cm and 13 cm. How many different triangles can he make using three of these sticks?

3   11

13

{3,11,13} possible triangle

1   3

5

{1,3,5} impossible triangle

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23 24 25 26 27 28 29 30 31 32 33

1. [+ Whole Numbers to 10]

	11	54	6	19	32	45	8	17	63	10
+ 7										

2. [– Whole Numbers to 10]

	15	97	20	12	53	19	61	14	16	28
– 9										

3. [× Whole Numbers to 12]

	11	12	5	10	7	9	3	6	8	4
× 8										

4. [÷ Whole Numbers to 12]

	24	42	18	48	66	72	60	36	30	54
÷ 6										

MATH'S MATE

BLUE

Term 4 - Sheet 7

Name: ....

Due Date: ..../ ..../ ....

Parent's Signature:

QUOTE OF THE WEEK
It is when we forget ourselves that we do things that are most likely to be remembered.

5. [Large Number +,–]

$$5\,1,6\,3\,2$$
$$+\quad 7\,5\,7\,8$$

6. [Large Number ×,÷]

$$3\,0\,2\,2$$
$$\times\qquad 1\,9$$

7. [Decimal +,–]

$$9$$
$$-\ 0.0\,4$$

8. [Decimal ×,÷]

$$0.3$$
$$\times\ 0.8$$

9. [Fraction +,–] *

$$\frac{8}{15}+\frac{3}{5}=$$

10. [Fraction ×,÷] *

$$\frac{3}{5}\div\frac{1}{2}=$$

11. [Percents] *

If an $80 sweater is reduced by 60%, what is the sale price? $

12. [Decimals / Fractions / Percents]

Complete the table:

Decimal	Fraction	Percent
		15%

13. [Integers]

$$-2+9=$$

14. [Rates / Ratios] *

China issued one of the largest stamps ever, 210 mm long and 65 mm wide. Find the ratio of length to width.   :

15. [Exponents / Square Roots] *

$$3^3 =$$

16. [Order of Operations] *

$$5+(8-4)^2=$$

17. [Exploring Number]

Choose the integers from this list:

$$\frac{7}{9},\ 184,\ -20,\ 3.14,\ 630$$

18. [Multiples / Factors / Primes]

List the prime factors of 30.

19. [Number Patterns]

Complete the pattern:

$$-25,\ -20,\ -15,\ -10,\ \underline{\quad},\ \underline{\quad}$$

20. [Expressions]

Simplify
$$e+f+f+e+f$$

21. [Substitution] *

If $v=2$, find the value of $13-v^2$

22. [Equations] *

Solve for m:
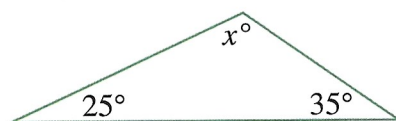$$7+m=15 \qquad m=$$

23. [Graphs & Functions]

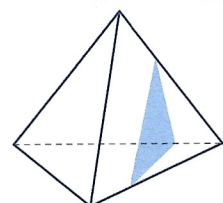Alex cycles at a constant rate. Which graph shows this?
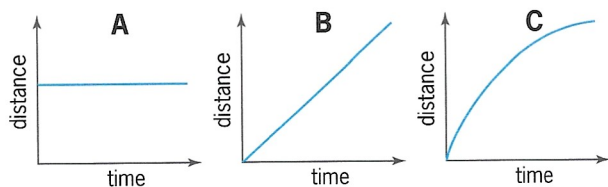
A — distance vs time (horizontal line)
B — distance vs time (straight increasing line)
C — distance vs time (curve leveling off)

24. [Shapes] *

Find the value of $x°$.

$x°$, $25°$, $35°$

25. [Exploring Geometry]

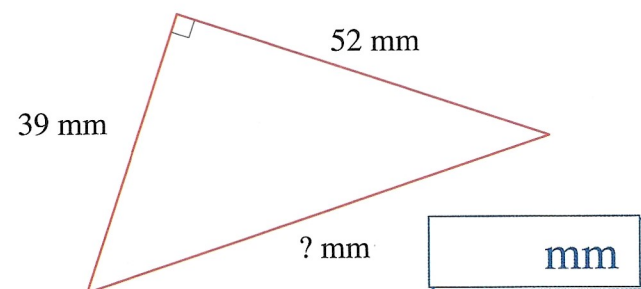What shape is the cross section drawn through this pyramid?

26. [Units of Measurement / Time] *

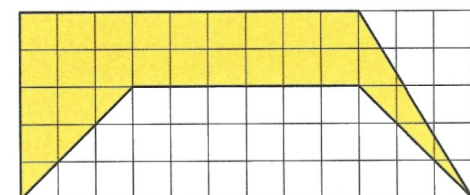Find the time in hours and minutes between 22:30 and 04:20 the next day.

27. [Perimeter] *

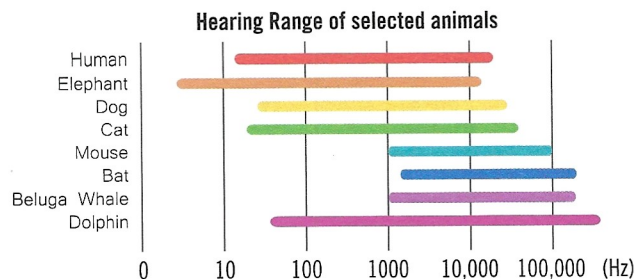The perimeter of the right triangle is 156 mm. Find the missing side length.

52 mm
39 mm
? mm

mm

28. [Area / Volume] *

Find the area of the shaded polygon.

sq. units

29. [Statistics]

Which animal can hear sounds with a frequency of less than 10 Hz?

Hearing Range of selected animals

Human, Elephant, Dog, Cat, Mouse, Bat, Beluga Whale, Dolphin

0   10   100   1000   10,000   100,000   (Hz)

30. [Probability] *

What is the probability that a person chosen at random enjoys both skating and tobogganing? [Give your answer as a fraction in simplest form.]

Winter activities
skating   tobogganing
7   4   5
2
Venn diagram

31. [Problem Solving 1] *

A bottle of soft drink is two thirds full. One quarter of the drink is consumed. How full is the bottle now?

32. [Problem Solving 2] *

Genevieve forgot the last two digits of her four-digit locker code:

2 1 ? ?

If the number is divisible by 5, by 6 and by 7, what is Genevieve's locker code?

33. [Problem Solving 3] *

Each of the letters below represents a different digit.
If EAT = 721,
what does TURKEY represent?

```
              A
    M E R R Y
+     X M A S
-----------
  T U R K E Y
```

TURKEY =

1. [+ Whole Numbers to 10]

	12	14	17	30	75	28	41	79	13	6
+ 9										

2. [– Whole Numbers to 10]

	18	22	16	39	5	27	14	3	20	11
– 3										

3. [× Whole Numbers to 12]

	3	8	11	7	10	12	9	4	6	5
× 12										

4. [÷ Whole Numbers to 12]

	28	77	56	35	49	21	63	42	84	70
÷ 7										

MATH'S MATE

BLUE

Term 4 - Sheet 8

Name: ....

Due Date: .... / .... / ....

Parent's Signature:

QUOTE OF THE WEEK
Nowadays, when buying a present, it's hard to find something that looks like it cost as much as it did.
W. P. G.

5. [Large Number +,–]

$$69{,}780 + 2453$$

6. [Large Number ×,÷]

$$4203 \times 37$$

7. [Decimal +,–]

$$51 - 0.07$$

8. [Decimal ×,÷]

$$0.9 \times 0.4$$

9. [Fraction +,–] *

$$\frac{7}{10} - \frac{9}{20} =$$

10. [Fraction ×,÷] *

$$\frac{2}{5} \div \frac{1}{4} =$$

11. [Percents] *

If an $8000 diamond ring is discounted by 40%, what is the sale price?

$

12. [Decimals / Fractions / Percents]

Complete the table:

Decimal	Fraction	Percent
0.6		

13. [Integers]

$$-9 + 6 =$$

14. [Rates / Ratios] *

The Singapore Flyer observation wheel has a height of 16,500 cm and a diameter of 150 m. Find the ratio of diameter to height.

:

15. [Exponents / Square Roots] *

$$6^3 =$$

16. [Order of Operations] *

$$4 \times (8 - 3)^2 =$$

17. [Exploring Number]

Choose the integers from this list:

$$8.4, -12, 17, \frac{2}{4}, 100$$

18. [Multiples / Factors / Primes]

List the prime factors of 42.

19. [Number Patterns]

Complete the pattern:

13, 9, 5, 1, ____ , ____

20. [Expressions]

Simplify
$$h + g + h + g$$

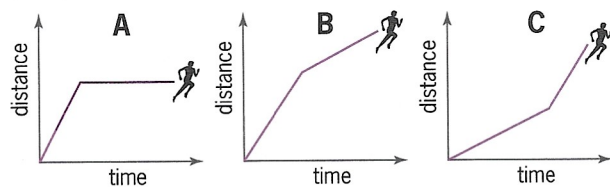**21.** [Substitution] *

If $e = 5$, find the value of $2e^2 - 12$

22. [Equations] *

Solve for v:
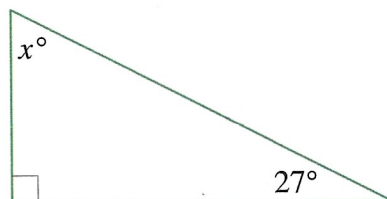$$20 - v = 6$$

$v =$

23. [Graphs & Functions]

Rita jogs at a constant speed and then sprints across an intersection. Which graph shows this?
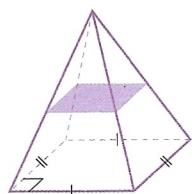

24. [Shapes] *

Find the value of $x°$.

25. [Exploring Geometry]

What shape is the cross section drawn through this pyramid?
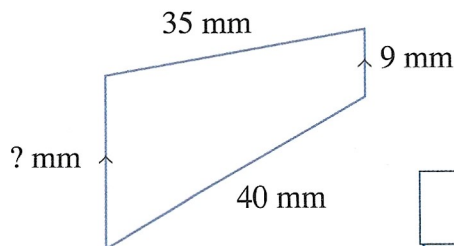

26. [Units of Measurement / Time] *

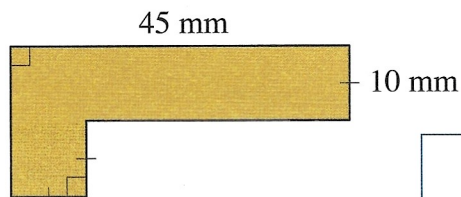Find the time in hours and minutes between 02:25 and 15:50 on the same day.

27. [Perimeter] *

The perimeter of the trapezoid is 107 mm. Find the missing side length.
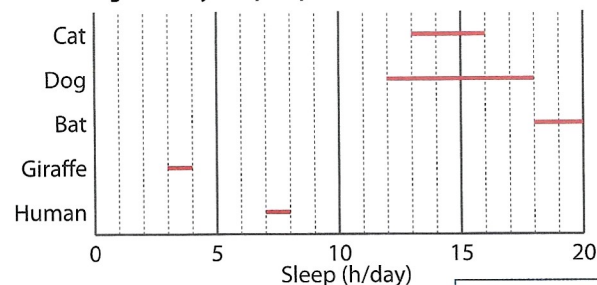

mm

28. [Area / Volume] *

Find the area of the polygon.
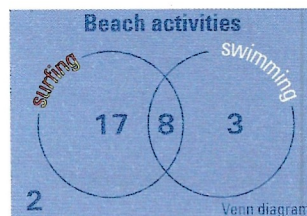

mm^2

29. [Statistics]

Which animal sleeps the most hours each day?

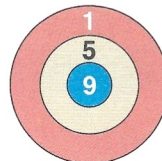*The range of daily sleep requirements for selected animals*

30. [Probability] *

What is the probability that a person chosen at random went surfing? [Give your answer as a fraction in simplest form.]

31. [Problem Solving 1] *

Four darts are thrown at the target. If each dart lands on the target, how many different point totals are possible?

32. [Problem Solving 2] *

What single discount is equivalent to successive discounts of 10% and 20%?

33. [Problem Solving 3] *

Pierre de Fermat, a 17th century French lawyer, stated that any whole number can be written as the sum of four or less square numbers. For example:

$$15 = 3^2 + 2^2 + 1^2 + 1^2$$

Express 95 as such a sum.

$$95 =$$