

Quantitative Reasoning, Algebra, and Statistics

Sample Questions

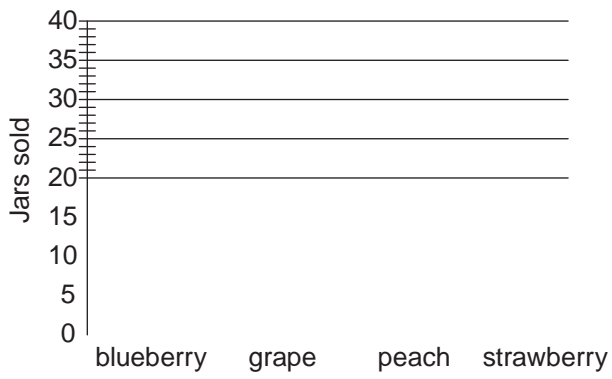
The College Board

7KH &ROOHJH %RDUG LV D PLVVLRQ GULYHQ QRW IRU SUR@W RUJDQL]DWLRQ WK
VWXGHQWV WR FROOHJH VXFFHVV DQG RSSRUWXQLW\)RXQG HG LQ WKH &R
ZDV FUHDWHG WR H[SDQG DFFHVV WR KLJKHU HGXFDWLRQ 7RGD\ WKH PHPEHU
DVVRFLDWLRQ LV PDGH XS RI RYHU RI WKH ZRUOG^V OHDGLQJ HGXFDWLRQ
DQG LV GHGLFDWHG WR SURPRWLQJ H[FHOHQFH DQG HTXLW\ LQ HGXFDWLRQ
&ROOHJH %RDUG KHOSV PRUH WKDQ VHYHQ PLOOLRQ VWXGHQWV SUHSDUH IRU
WUDQVLWLRQ WR FROOHJH WKURXJK SURJUDPV DQG VHUylFHV LQ FROOHJH UH
FROOHJH VXFFHVV \ LQFOXGLQJ WKH \$DQDQDQ 3DFPHQW 3URJUDP
7KH RUJDQL]DWLRQ DOVR VHUylHV WKH HGXFDWLRQ FRPPXQLW\ WKURXJK UHVHD
DGYRFD\ RQ EHKDOI RI VWXGHQWV HGXFDWRUV DQG VFKRROV
)RU IXUWKHU LQIRUPDWLRQ YLVLW www.collegeboard.org

ACCUPLACER Quantitative Reasoning, Algebra, and Statistics Sample Questions

7KH QH[W JHQHUDWLRQ DQWRYH 5HDVRLQJ \$OJHEUD DQG
6WDWLWLVLFV SODFPHQW WHVW LV D FRPSXWHU DGDSWLYH DVVHVVPHQW RI W
IRU VHOHFWHG PDWKHPDWLFV FRQWHQW 4XHVWLRQV ZLOO IRFXV RQ D UDQJH
LQFOXGLQJ FRPSXWLQJ ZLWK UDWLRQDO QXPEHUV DSSO\LQJ UDWLRV DQG SUR
UHDVRLQJ FUHDWLQJ OLQH DU H[SUHVVLRQV DQG HTXDWLRQV JUDSKLQJ DQG
OLQH DU HTXDWLRQV XQGHUVWDQGLQJ SUREDELOLW\ DQG VHW QRWDWLRQ DQ
JUDSKLFDO GLVSOD\ ,Q DGGLWLRQ TXHVWLRQV PD\ DVVHV D VWXGHQW^V PD
YLD FRPSXWDWLRQDO RU °XHQF\ VNLOOV FRQFHSWXDO XQGHUVWDQGLQJ RU W
DSSO\ PDWKHPDWLFV SUHVHQWHG LQ D FRQWH[W \$OO TXHVWLRQV DUH PXOWLS
IRUPDW DQG DSSHU GLVFUHWHO\ VWDQG DORQH DFURVV WKH DVVHVVPHQW
7KH IROORZLQJ NQRZOHGJH DQG VNLOO FDWHJRULHV DUH DVVHVVPHQW
5DWLRQDO QXPEHUV
5DWLR DQG SURSRUWLRQDO UHODWLRQVKLSV
([SRQHQWV
\$OJHEUDLF H[SUHVVLRQV
/LQH DU HTXDWLRQV
/LQH DU DSSOLFDWLRQV
3UREDELOLW\ DQG VHWV
'HVFULSWLYH VWDWLWLVLFV
*HRPHWU\ FRQFHSWV

4 ?



8. Which of the following fractions is equivalent

to $\frac{6 \cdot (9)}{8}$?

- A. $\frac{3}{8}$
- B. $\frac{3}{8}$
- C. $\frac{15}{8}$
- D. $\frac{15}{8}$

9.

	Plans to vote "yes" on issueQ	Plans to vote "no" on issueQ	Total
Plans to vote "yes" on issueP	8	12	20
Plans to vote "no" on issueP	14	16	30
Total	22	28	50

- A. 0.16
- B. 0.36
- C. 0.40
- D. 0.67

- A. $\frac{1}{15}$
- B. $\frac{1}{125}$
- C. -15
- D. -125

- A. $2\frac{2}{3}$
- B. 4
- C. $5\frac{1}{3}$
- D. 12

$(x^3 \cdot x^2)$?

- A. x^{10}
- B. x^{15}
- C. x^{25}
- D. x^{30}

- A. $4(2x + 7)$
- B. $8(x + 4)$
- C. $5x + 17$
- D. $8x + 13$

17. The elevation at the summit of Mount Whitney is 4,418 meters above sea level. Climbers begin at a trailhead that has an elevation of 2,550 meters above sea level. What is the change in elevation, to the nearest foot, between the trailhead and the summit? (1 foot = 0.3048 meters)

- A. -7
- B. -3
- C. 3
- D. 7

L = {0, 20, 40, 80, 100}
 M = {5, 10, 15, 20, 25}
 N = {10, 20, 30, 40, 50}

- A. (-3, -2)
- B. (3, -2)
- C. (-2, 3)
- D. (2, 3)

$L \cap (M \cup N)$

- A. {0, 5, 10, 15, 20, 25, 30, 40, 50, 80, 100}
- B. {0, 10, 20, 40, 80, 100}
- C. {20, 40}
- D. {20}

Answer Key

D
C
D
\$
\$
D
C
B
B
\$
C
\$
D
C
B
C
C
B
B
D

$\bar{2} \quad \bar{2} \quad \bar{2} \quad \bar{4}$

$\bar{4} \quad \bar{2} \quad \bar{4}$

125 11 235

659 808 608 465 643 3183 and 3183 5 6366

$\frac{3}{8}$

150gallons 15 gallons per minute 100

8 $\frac{2}{3}$

4x 20 4x 8

4(x 5) 4x 8
8Tf 3 Tr 9.25 0 0 00 0 9.25 48.6706 421.35290.7 10 166 Tm 6

(90minutes 40 W D)V N V

(2 25 10 225)

90 10

8 20 04

$$\frac{1}{5 \times 5 \times 5} = \frac{1}{125}$$

$$\frac{1}{5^3}$$

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

5 (3)

$$(x^3 x^2)^5$$

4 418 2 550 1 868

(1 868 0 3048 6 129)